The Builder.

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The Frozen Thames.

IT is a question for meteorologists to consider whether the seasons of long-continued frosts will come again, and whether with the greater protection to the stream from increased building in London, it will be possible for the whole surface of the Thames above bridge to take a solid form as it did in 1814. The coldest winters of late years have done little more than stop the navigation of the river, and the present generation of Londoners has only seen at sundry times great masses of ice, floating on the tide and giving our river a very Arctic appearance.

History has left us particulars of many cold winters in which the river was frozen over, but those in which it was firm enough to support large numbers of persons occurred in the years 1564-5, 1607-8, 1683-4, 1715-16, 1739-40, 1788-89, and 1814. It is also recorded that the Thames was frozen for nine weeks in the year 250, for six weeks in 695, for thirteen weeks in 923, for five weeks in 998, and for fourteen weeks in 1063. In 1281 there was a severe frost and snow "such as no man living could remember the like," when five arches of London Bridge were "borne downe and carried away with the streame." The river was frozen as far as Gravesend from November to February, 1433-4, and in 1506 and 1515 the ice was said to be strong enough to bear carriages and cattle, but we have no authentic details of any of these frosts.

As we have access to a very complete collection of views and documents relating to Frost Fairs, we will take the opportunity of giving a short notice of the most interesting of these. In 1564, a very severe frost set in on the 21st of December, and on New Year's Eve people walked on the ice from London Bridge to Westminster. Some played at football, and others shot at marks. The courtiers from the palace at Westminster mixed with the citizens, and tradition reports that Queen Elizabeth herself walked upon the ice. This frost was of short duration, for on the 3rd of January the thaw had commenced, and on the 5th there was no ice to be seen between London Bridge and Lambeth. The next frost of note commenced on the 8th of December, 1607, and continued until the 15th. A thaw ensued until the 22nd, when it began "againe to freeze violently, so as divers persons went halfe way over the Thames upon the ice; and the 30th, at every ebbe, many people went quite over in divers places, and so continued until the 3rd of January." There were bowlings and dancings on the ice, and numerous other pastimes. A great concourse of men, women, and children, gathered round the booths of the fruit-sellers, beer and wine sellers, shoemakers, and barbers, and in all these tents there were fires. The ice lasted till the afternoon of the 2nd of February, when "it was quite dissolved and clean gone." In the winter of 1676-7, booths and provision-tents were erected on the Thames, but a narrow channel, over which people passed on planks, always remained unfrozen. The greatest of the frost fairs was the one that took place in the winter of 1683-4. The frost began about seven weeks before Christmas, and continued for six weeks after:—

"Behold the liquid Thames now frozen o'er,
That lately ships of mighty burthen bore.
The watermen, for want of rowing-boats,
Make use of booths, and get their pence and groats.
Here you may see beef roasted on the spit,
And for your money you may taste a bit.
There you may print your name, tho' cannot write,
'Cause num'd with cold; 'tis done with great delight,
And lay it by that ages yet to come
May see what things upon the ice were done."

These verses give a catalogue of the amusements of the fair, but we have also two contemporary views, which aid us materially in picturing what the place was like. In the distance is London Bridge, with the old houses still standing upon it, and in the foreground are the Temple Stairs. Right across the river, extending from the latter place, was a double line of tents, called Temple-street, or Blanket Fair (from the blankets with which they were made).

"Like Babel, this fair's not built with brick or stone,
Though here, I believe, is a great confusion;
Now blankets are forced a double duty to pay,
As beds all the night, and for houses all day."

Here were the Duke of York's Coffee-house, the song booth, the booth with a phœnix on it, the roast-beef booth, the half-way house, the bear-garden booth, the music booth, the printing booth, the lottery booth, and the Horn-tavern booth. Between the bridge and Temple-street were two large rings of spectators, in one of which a bull was baited, and in the other was the sliding-chair which was drawn by a long rope fastened to a stake fixed in the ice. Large boats capable of containing a number of passengers, and decorated with flags and streamers, are represented as being used for sledges, some of them being drawn by horses, and others by watermen in want of their usual employment. Another sort of boat was mounted on wheels, and one vessel called 'the *Drum-boat*' was distinguished by a drummer placed at the prow. The games of throwing at a cock, foot-ball, skittles, &c., are represented as being played in various parts of the river. Boys are seen sliding, and men "sliding upon skates," and coaches filled with visitors moving in all directions. The Temple Gardens are represented as crowded with people looking over the walls, and in the trees are boys looking on at the bull-baiting. There is a whole literature of ballads printed and sold upon the ice, such as "Great Britain's Wonder," "A Winter Wonder," "Freezland Fair; or, the Icy Bear Garden," &c. In "Blanket Fair, or History of Temple-street, being a relation of the merry Pranks plaid on the River Thames during the great Frost," we read:—

"I'll tell you a story as true as 'tis rare,
Of a river turn'd into a Bartholmew Fair.
Since old Christmas last,
There has bin such a frost,
That the Thames has by half the whole nation bin crost.
O scullers! I pity your fate of extreams,
Each landman is now become free of the Thames."

In "Thamasia's Advice to a Painter," a full description is given of the wonders of the fair:—

"Then draw me Temple-Blanket-street, where all
The watermen do loudly cry and bawl,
Louder than lawyers in western hall:
Instead of standing at the stairs to ply,
They say, What is't you lack, what is't you buy?"

Evelyn relates in his "Diary" what he saw upon the ice. He tells us that coaches plied from Westminster to the Temple, and to and from the various stairs as in the streets; that sledges flew about the place; that there were horse and coach races; and that, on account of the puppet plays and interludes, the tippling and other lewd places, the whole "seemed to be a bacchanalian triumph, or carnival on the water." Charles II. was very partial to frost fair. Once he hunted a fox here, and a French traveller present in London at the time states in a small volume printed at Paris that the king passed a whole night upon the ice. On one occasion he went with his queen, the Duke of York and his wife, the Princess Anne and her husband, and Prince George of Denmark, who had their names printed by G. Croom on one card. Some of the meat of the roasted ox is said to have been presented to the king and queen and the rest of the nobility. Evelyn refers to the humour that took the people to have their names printed on the ice, with the day and year set down; and, he adds, that it was estimated that the printer gained five pounds a day for printing a line only at sixpence a name. Numerous instances of this fashion have come down to us; for instance, Henry Justel, the newly-appointed Keeper of the King's Library at St. James's, went with his wife to the printing-booth, and their card is still in existence.

On the 5th of February the thaw commenced, but it took some little time to melt the 11-inch-thick ice. The watermen celebrated their return to their proper occupation in a spirited song, called "The Thames Uncased," which commences as follows:—

"Come, ye merry men all,
Of Watermen's Hall,
Let's hoist out our boats and careen;
The Thames it does melt,
And the cold is scarce felt,
Not an icicle's now to be seen.
Let's pull down each scull,
That hung up in the hall,
Like weapon so rusty, and row;
Let's cheerly fall to't,
If we've not forgot,
For the frost is over now."

In 1709 the Thames was again frozen over, and several persons crossed the ice, but the frost was not sufficiently permanent to allow of another frost fair. This winter of 1708-9 was exceedingly severe over the greater part of Europe, and obtained the distinctive title of the cold winter. Men and animals perished by thousands and immense quantities of vegetables were entirely destroyed. Olive plantations were destroyed in the south of France, and in England wheat rose in price from 2*l.* to 4*l.* per quarter.

In 1715-16 the river was frozen from the 24th of November to the 9th of February, and all the fun of the 1684 fair was revived. An unusually high spring-tide, which overflowed the cellars on the border of the river, and raised the ice 14 in., occurred without interrupting the people in their diversions. Coaches, wagons, and carts passed and repassed, an enthusiastic Methodist preached to a motley congregation, and over against St. Paul's Wharf an ox was roasted on the ice. The Prince of Wales and many of the nobility were attracted to the fair, and a newspaper of the period intimates that the theatres were almost deserted. A large cook's shop was erected, and gentlemen went as frequently to dine there as at any ordinary. Printing-presses were set up near Westminster, Whitehall, and Whitefriars, and the following is a copy of the handbill of one of these:—"This is to give notice to gentlemen and others that pass upon the Thames during this frost, that over against Whitehall-stairs they may have their names printed, fit to paste in any book, to hand down the memory to posterity,—

"You that walk there and do design to tell
Your children's children what this year befel,
Go print your names, and take a dram within,
For such a year as this has seldom been."

The nation seems still to have been sorrowing for the death of good Queen Anne, although she had been dead for a year and a half, for the

favourite broadsides that were printed and sold on the ice were verses in commendation of her virtues.

The next frost-fair was kept in the winter of 1739-40, which was so intensely cold that many persons who had lived in Hudson's Bay declared that they had never known it colder there. The frost commenced on Christmas-day, and the Thames was soon covered with floating rocks and shoals of ice. When these were fixed, the river represented a snowy field rising in many places in hillocks and huge rocks of ice and snow, and many artists seized the opportunity of making sketches of it. The streets were so clogged with snow and ice that hackney-coaches went with three or four horses, and Fleet-street was so long neglected that, at last, scores of men had to be employed to clear the way. The houses on London Bridge received considerable damage from the numerous vessels that broke from their moorings, and lay beating against them. Little or no novelty appears to have been introduced into the amusements of the fair, and the same things were done as on the former occasions. Some vintners in the Strand bought an ox in Smithfield to be roasted whole on the ice, and Mr. Hodgeson, a butcher of St. James's-market, claimed the privilege of knocking down the beast as a right inherent in his family, his father having knocked down the ox roasted on the river in 1684, as he himself did that roasted in 1715 near Hungerford stairs. The beast was fixed to a stake in the open market, and Mr. Hodgeson came dressed in a rich laced cambric apron, a silver steel, and a hat and feathers, to perform the office. At the Golden King's Head Printing-booth was sold "An Account of all the principal Frosts for above a Hundred Years past," with a frontispiece of London Bridge at the time of the frost, which purported to have been printed on the ice. Another popular publication was, "The humble Petition of the River Thames to the venerable Sages of Westminster Hall," in which we read that "ministers of punishment have treated him with the utmost contempt and insolence, have even made a publick shew of him, have call'd in heaps of ragamuffins to trample upon him, and, what is worst of all, have forced a numerous family, which he used to provide for, to beg in the streets." The thaw came on very rapidly, so that the most valuable effects were moved with difficulty out of the different booths. The ebbing tide on the 21st of January carried with it a sort of island of ice, which was interrupted in its passage by London Bridge, as if it had come to anchor, and the inhabitants of the western side of the bridge found on opening their windows in the morning, the remains of booths, shops, huts, &c., huddled up in the greatest confusion beneath them.

The next severe winter of note was that which occurred in 1788-89, when there was the greatest distress among the poor. The different parishes opened public subscriptions for the assistance of the distressed, and the Watermen and Lightermen's Company requested subscriptions in aid of their poor members, who, by reason of the freezing of the Thames, were deprived of their means of earning a living. At the foot of the advertisement we are informed "that upon every exigency of the State, the Company have raised out of their body of people three thousand men, or more, fit for his Majesty's service, most of them having been at sea." The frost was so intense that the Thames was frozen below bridge, and a young bear was hunted on the ice near Rotherhithe. The shipping at Deptford, Greenwich, and Blackwall was almost as completely shut in with ice as that in the pool. Every morning large quantities of boiling water were poured on the water-works at London Bridge before the wheels could be set in motion, and twenty-five horses were daily employed in removing the ice which surrounded them. Firemen patrolled the streets and delivered the following handbill to the inhabitants:—"The directors of the different fire-offices, taking into consideration the dreadful consequences that may arise should a fire happen in the present inclement season, have thought it expedient to direct that a proper number of their respective engineers and firemen shall patrole, in divisions, the different parts of the town, which the constables and watchmen are desired to take notice, that the earliest information may be given to said firemen when a fire happens." The fair extended from Shadwell to Putney Bridge, which was a considerably larger surface than had been occupied at any other time. Booths, turnabouts, and puppet-shows were everywhere to be seen, and travelling menageries moved from place to place. The watermen, in order to put a little money into their pockets, broke the ice close to the shore, and placed bridges across, with toll-bars, so that every person had to pay one halfpenny for liberty to pass on to the ice. The thaw came on very suddenly, and the fair was broken up in confusion on the night of January 13th. The cracking of some ice at eight o'clock caused considerable consternation and an instant rush to the shore on each side of the river. The confluence here was so sudden and impetuous that the watermen who had formed the toll-bars, not being able to maintain their standing, pulled up the boards, by which a number of persons who could not leap, or were borne down by the press, were soused up to the middle. The loss of hats, handkerchiefs, and other property was great on this occasion. About two o'clock, as some people were drinking in a tent on the ice, a little below London Bridge, that part of the ice upon which the tent was broke away from the main body, and floated with the tide almost to the bridge, where the now sobered bacchanals were taken into a boat.

We now come to the last of the frost-fairs, which took place in the year 1814, within the memory of some still living, notably of George Cruikshank, who has given us a vivid representation of the humours of the fair. The frost commenced on the evening of December 27th, 1813, with a thick fog, which lasted for several days, and was succeeded by a very heavy fall of snow. After the frost had lasted for a month, a thaw of four days, from the 26th to the 29th of January, took place; but this thaw was succeeded by a renewal of the frost, so severe that the Thames soon became one immoveable sheet of ice. On Tuesday, February 1st, the unemployed watermen set up their little bridges from the edge of the river to the firm ice, and some of them are said to have received as much as 6*l.* in the day from tolls, so great were the numbers that thronged to the fair. There was a street of tents called the City-road, in which gay flags, inviting signs, music, and dancing attracted the visitors' attention. Here respectable tradesmen attended with their wares, selling books, toys, and trinkets of every description. Those who made purchases were presented with a label, setting forth that the article was bought on the frozen Thames. The printers, as usual, brought their presses, and sold large numbers of their handbills. One of these contains the following notice:—"Whereas, you, J. Frost, have by force and violence taken possession of the river Thames, I hereby give you warning to quit immediately.—A. THAW." On another are these lines:—

> "Amidst the arts which on the Thames appear
> To tell the wonders of this icy year,
> Printing claims prior place, which at one view
> Erects a monument of that and you."

A small sheep was roasted over a charcoal fire placed in a large iron pan, and sixpence was charged for the privilege of seeing this. The meat itself was sold under the name of "Lapland mutton" for one shilling a slice. On the evening of the 5th of February a thaw set in with heavy rain, and at two o'clock the tide, which during the whole frost had not risen above half its usual height, rose rapidly and burst the ice. The greater number of the people were warned in time and got off without difficulty, but a drunken party who were carousing in a tent at two o'clock in the morning narrowly escaped drowning: they were dashed from iceberg to iceberg till they settled against one of the piers of Blackfriars Bridge. In their terror they added to the danger of their situation by setting fire to the tent. A few days after the breaking up of the frost a "comic pantomime" was brought out at the Olympic Theatre, called "Frost Fair; or, Harlequin frae the North." "Among other scenery was displayed Queenhithe and the Fair on the Thames."

We have had severe and long-continued frosts since 1814, as in the winters of 1855 and 1860-61, but in no year has the Thames been completely frozen over, and we hope that 1814 will long deserve and retain the distinction of having produced the last frost fair, for the distress and stagnation of all business which the cold causes very far outweigh any amount of amusement that may be got out of the anomaly of walking on solid water. "'Tis sixty years since!" and London has greatly advanced in every respect during the period, so that a severe snowstorm does not now find us *quite* so unprepared as it did our forefathers in 1814, although it still leaves our streets in great disorder.

ON RETICENCE IN DESIGN.

IN the course of a concise but original and sensible paper read at the last meeting of the Architectural Association, on the Influence of Tradition in Goldsmiths' Work (noticed in another column), reference was made to the superior artistic excellence of Greek goldsmiths' work, combined, as it is, with a great simplicity of design and workmanship—marked by what the lecturer on the occasion rather happily termed the "reticent power" of Greek design. It is this quality which more, perhaps, than any other, distinguishes antique from most modern art. The modern designer is desirous of showing all he can do in a given space; like Launcelot, he would "spend all the wealth of his wit in an instant." The antique artist, the Greek especially, was desirous to show how perfectly and effectively he could do just what was required, or what the object demanded and allowed scope for, and no more. It is this "no more" which we have very much lost sight of, and seem in danger of altogether losing in modern art.

This is particularly the case in regard to the class of art-work in reference to which the remark was made. Where gold and silver are used as the medium for ornamental design, the chief desire seems to be to produce what is supposed to be as rich an effect as possible, by a superabundance of work on every part, without consideration either of the suitability of the details themselves, or of their real effect on the total result. If we notice the majority of the articles set forth in the windows of our leading jewellers and silversmiths, we see a great deal of beautiful and elaborate workmanship, but a great lack of attention to beauty and fitness of form, amounting often to absolute want of perception of this, to all appearance; and this defect is atoned for by a profusion of ornament which serves to weaken and obscure the main lines of the design, even where these are better than usual. In a brief note last week on the drawings for the goldsmiths' prize designs now exhibited in the Architectural Museum, we had occasion to notice this utter absence of reticence in design, which is displayed in these drawings in a most marked and unfortunate manner. In designs for tea and coffee services, spouts and handles are encrusted with ornament just in the same way as the body of the vessel, with no attempt to emphasise the longitudinal lines in these situations where a broad surface treatment is impossible; the feet and stands of the articles are ornamented as profusely as the rest, and in several cases in a manner which takes from them all appearance of strength and stability, and makes them seem quite unfit to support the weight placed on them. Yet these designs, which are shown, some of them, in very elaborate and well-executed drawings, are put forth as the best art-workman's design in response to handsome premiums offered by the trade Guild engaged in producing such articles. We may take these therefore as fair specimens of what the working gold and silver smith, left to himself, has to offer us; and certainly they are not encouraging, when we consider the amount of lecturing and museum-opening for the art-workman which has gone on of late years. There seems to be no perception that the thought and consideration evinced in the design, and its fitness for the shape and the material in which it is executed, are what go to form its chief value. The object is to beat up the metal into an elaborate pattern ("design" it often can hardly be called), leaving not an inch of untouched surface to give relief; and then the article is at once reckoned as one of the handsomest which the firm, whatever it be, has turned out, and is priced, and generally paid for, accordingly: for the wealthy purchaser in England will believe whatever he is told, and is ready to buy whatever he thinks will make the most show. To a considerable extent, no doubt, the customer is in fault as much as the artificer, as he demands these things to please his inconsiderate taste for show and glitter rather than real beauty; but it would be, at all events, more satisfactory if there were more chance and temptation for purchasers to blunder into good taste, even by accident, instead of being offered only a choice of gaudy and pretentious articles. If the Goldsmiths' Company, who offered the prizes here alluded to, are possessed with a real desire to improve their art in the truest sense, they would have done better to have withheld the premiums, and sent them back to the designers to remodel their designs, and reduce them to simpler and better considered forms. But it is to be

feared that what really was required was the style of design that would be most marketable; and in that view of the matter the premiums have possibly been only too well bestowed.

It is in some of the smaller productions of the ornamental arts that the common and vulgar character of modern art, or want of art, is as much felt as in anything. A Greek finger-ring, or ear-pendant, though it may be very simple and unpretending in comparison with some modern productions of the same kind, has a defined and delicately-finished form which has evidently been carefully considered, and which is elegant in itself, even when unaccompanied by any suggestive device; and if it have such a device, it is one showing fancy and invention, not a mere aimless repetition of some common-place object. There is nothing more indicative of the real vulgarity of taste of the present day in such matters, than the kind of articles which are produced for inspection, as fashionable, in the way of personal ornaments. Every one who has ever wanted a scarf-pin or ring knows that he will be offered either a buckle or a horseshoe in gold. There is no pretence that such objects are very interesting or suitable in themselves,—but they are executed in gold, and that is enough to give them value; and the more massive the better, as representing greater expense. And in this quality of massiveness there is a very singular contrast between ancient and modern goldsmiths' work, which has not been so much noted by critics. In antique classic ornament it was recognised that gold being a material of great value, the most was to be made of it, and the greatest amount of artistic effect was to be got out of the smallest amount of metal. So antique gold ornaments, Greek and Etruscan at least, are much thinner and slighter than most modern gold work; the metal is a precious metal to be used economically, and it is twisted into cunning designs in line, or beaten and engraved in thin plates. But now, although gold is not yet a drug in the market, the object in ornamental work seems to be exactly the reverse of that of the antique workman; the evident aim being to use as much of the metal with as little trouble in designing as possible. This is a characteristic of some semi-barbarous nations, among whom massive bracelets and anklets of gold are counted as desirable ornaments, and evidently valued and respected for their massiveness in metal. So that now we, the children of modern civilisation, have come very much back to barbarism in these matters, and desire show and ostentation of valuable material, in regard to quantity rather than quality, and with no wish for anything better from it than an evidence of so much expenditure.

This quality of reticence is characteristic of antique art in other things, of course, besides articles made of the precious metals, and the want of it in the present day is equally to be noticed in various branches of art design. Take examples of Greek ornamental vases, for instance, and observe how simple and concise, if we may so speak, is the decoration, and how the figures, where introduced, seem to give the abstract essentials of expression and action, rather than realistic representations of detail. At present, in regard to objects of this kind, we have turned our attention to models of the opposite extreme of excessive elaboration of minute detail, regardless of general design or effect; and the vases of Japan are our models in place of those of Greece. These have much richness and beauty, especially of workmanship; but it is workmanship bestowed for its own sake only, without thought, and producing its effects of colour by a happy instinct. The want of reticence in these productions is characteristic of the East, which we habitually speak of as "lavish" and "gorgeous" in the use of ornament, and there is a great charm about this profuseness of display in its way; but it is a charm not of the highest order, and partaking of the spirit of barbarism,—of a childish delight in display for its own sake, very different from, very inferior to, that reasoning intellectual spirit in design which led the Greek artist to give just what was necessary to produce the highest and best result, without weakening the effect by unnecessary elaboration.

What applies to ornamental work on a small scale in this respect applies also to architectural design at large. The want of reticence in modern architecture is fostered by the competition system, which leads to the very contrary result, the object of each competitor being to surpass and extinguish the rest by the profuseness of decoration to be supplied for a given sum. We seldom see a building (of any pretension) in execution, and still less often in drawing, in which there is not a good deal of ornamental work which seems to have no object or meaning, and not to help the design in the least. It would hardly be a bad thing for modern architecture if a tax were levied on ornamental carved work; there would then be a probability of architects and their clients (who are not without their influence in these matters) taking care that what ornament was introduced had some definite value and meaning to show for the expenditure upon it.

It is possible, as we see in Oriental work, to have a good deal of "power," though not of the highest kind, without "reticence"; it is also possible to have reticence without power or originality. This may seem at first to imply mere nothingness; but it is a virtue, though a negative one, and is infinitely to be preferred to profuseness under the same conditions. If a man has nothing to say, whether in oratory or in art, his wisest course is to say nothing. Profuse decoration without ideas is the very essence of what is called "vulgarity." Much better to let it alone altogether, and be content with the plain merit of good workmanship and construction, which is at least respectable, and of which there is not any superabundance in the world at present.

COMPLETION AND OPENING OF THE METROPOLITAN EXTENSION RAILWAY FROM MOORGATE STREET TO LIVERPOOL STREET.

THE extension of the metropolitan underground line from Moorgate-street to the Liverpool-street station of the Great Eastern Railway, which has been in progress during the last two years, will be opened for traffic on Monday next. Although the line is only a little more than half a mile in length, the engineering and other works in connexion with its construction have been of a formidable character, and the cost, including the purchase of property, and the replacing of buildings which the company have been under the necessity of removing, is unusually heavy. Commencing at the Moorgate-street station the course of the line directly intersects what was formerly the refreshment rooms, and in their place entirely new refreshment rooms have been erected on piles, and are thus now on a level with Moorgate-street. The line is then carried under and across Little Moorgate-street, and the space between that street and Finsbury-pavement, by side walls supporting iron girders, the walls and girders in the space between Little Moorgate-street and Finsbury-pavement being of unusual thickness, inasmuch as they are intended to form the superstructure of a large railway hotel which the company, in conjunction with an hotel company, specially formed for the purpose, intend to erect upon the site. This hotel will have four frontages, the principal elevation having its frontage to Finsbury-pavement. From Finsbury-pavement the line is continued immediately under the centre of the enclosed gardens in Finsbury-circus, and on to Blomfield-street to its junction with the lower end of Liverpool-street, by a tunnel 420 ft. in length. The walls of this tunnel are constructed of brick, with concrete inverts. In intersecting Blomfield-street the line takes in several blocks of property which the company have had to purchase and remove. Amongst these is the Provident Savings Bank Institution, with respect to which the company have undertaken to erect a new building in lieu of that which has been destroyed. The plans for this new building have been furnished by Mr. Sydney Rogers, architect, and the structure is about to be erected by Messrs. Newman & Mann, the amount of the contract being 4,540*l*. There has also been some heavy work as respects other property at this point, considerable difficulties having been met with in securing the safety of St. Mary's Roman Catholic Church and the Finsbury Congregational Chapel. It was found necessary to underpin both these buildings, whilst as regards the former, it was deemed advisable to close it during the progress of the works, and the company had to incur the expense of erecting a temporary church close to the Moorfields station. From Blomfield-street the line passes under Liverpool-street by a curve, in a north-easterly direction, forming a junction with the Great Eastern line, which describes the portion to be opened on Monday next. The main line, however, continues in a south-easterly direction under Broad-street, which is carried over it by side-walls and cast-iron pillars, supporting wrought-iron girders; towards Bishopsgate and the intended final terminus at High-street, Aldgate, being carried under and across Devonshire-square, and running parallel with Houndditch, on its north-eastern side. From Broad-street to the termination of the present works, in the direction of Bishopsgate-street, a large and valuable amount of property has been demolished to make room for the company's intended Liverpool-street station on the south-east side of that street. There will be entrances to this station both from Liverpool-street and Broad-street, and the station-area will have retaining walls at each side, with strong pillars and girders supporting a glass roof. There are sideways between the Great Eastern and Metropolitan stations, so that passengers can pass from the platforms of the one company's lines to those belonging to the other.

The works for the continuation of the line from Liverpool-street and Bishopsgate to the Aldgate terminus have not yet been commenced; but it is fully expected that they will almost immediately be proceeded with, as the report of the directors,—in anticipation of the approaching half-yearly meeting,—which has just been issued, states that the completion and opening of the line to Liverpool-street renders it opportune to consider whether the line to Aldgate should not be carried out. It adds that the shareholders have already paid 152,281*l*. for property and compensations on this section, and as all the notices were served before the Board took office, it would be economical to acquire the remainder of the land and buildings. It may be further stated that, last week, Mr. Mills, M.P., obtained upwards of 10,000*l*. as compensation for property in Devonshire-square which the company require for this portion of the line.

Mr. E. Wilson, the company's engineer, has designed the whole of the works above described, and the contractors are Messrs. Kelk & Lucas.

BATH ABBEY CHURCH.

WE mentioned in an incidental paragraph, the other day, the last annual meeting of the subscribers to the restoration of this church, which was held on the 6th ult., at which it was stated that upwards of 30,000*l*. had been spent up to the present time. The actual architectural restoration, so far, we believe, has cost somewhat less than this, and the sum named probably included some contingent expenditure.

The most important part of the work consisted in carrying out the groined roof of the nave, in continuance of the design of the chancel and transept roofs, and completing the large clearstory windows. Previously to the restoration the nave was covered in by a timber roof, resting on the walls at about the height of the present transomes of the clearstory windows, which were thus cut square off at the top by the eaves of the roof. Practical considerations alone must have led to reconstruction of some kind here, as this roof was much dilapidated, and even unsafe. To have simply replaced this by a new roof of the same description would have been a most unsatisfactory expenditure of money in renewing and perpetuating an incomplete form of the building, and it is to the credit of the late rector, the Rev. Charles Kemble, that he inaugurated, and by his energy and liberality did much to forward, the complete carrying out of the design of the church. This is an instance of church restoration in regard to which there can be no two opinions, as there is here no reconstruction of features the interest of which was purely archæological, but the carrying out of an architectural design which was in an incomplete state; and Bath can now boast of a specimen of a complete "Late Perpendicular" interior, with nave, transepts, and chancel, with fan-vaulting of fine design and execution carried throughout, as complete in its way as St. Mary Redcliff at Bristol; and, though not possessing the scale and grandeur of that remarkable church, nor showing such interesting specialities of design and effect, yet worthy of comparison with in regard to completeness and symmetry of internal architectural design. The old vaults, and the piers also in places, have had to be cut and filled in where the stone had decayed; but considering the usual impression as to the durability of the Bath stone at present so largely employed, and the manner in which we have seen angles and arrises de-

cayed and broken off in comparatively new churches, the state of preservation of the old vaults here has been far more complete than might have been expected, and leads to the supposition that the best beds of this popular building-stone had been chosen before it came so largely into use by modern builders. A complete cleaning of the surface has brought out the almost white lustre of the stone throughout the interior, which gives great effect to the stained glass with which the whole of the aisle windows, as well as the large windows of the chancel and transepts, are now filled. A large proportion of these windows, given mostly by individual donors, were the work of Messrs. Clayton & Bell, one or two being by Messrs. Hardman, and two by Messrs. O'Connor. Without directly making invidious comparisons as to merit, it is impossible to avoid the consideration, in looking at this large collection of stained glass, how desirable it would be in all such cases to bring the stained-glass design under some general control in regard to style and scale of colouring. In combination with the delicate tints of the Bath stone, the low key now almost always adopted in the windows of the first-mentioned firm is by far the best for the architectural effect; it harmonises best with the general tone of the masonry, and (which is a still more important point) extends the aërial perspective, and thereby gives scale to the building. This is particularly observable in regard to the large and many-lighted window which fills up the whole end of the south transept; and visitors who admire the effect of the view across the transept would be surprised to find how much of this is owing to the scale of colour in the window, and how the architectural effect would be reduced and narrowed by the substitution of the stronger and more vivid colours often so inconsiderately admired. Of course, this is more particularly the case in a building where the stone employed is of so light a tint. Nor do we say that we should always be satisfied to see stained glass employed with such an almost entire ignoring of primary colour as is shown in these windows. But at least the whole should be in the same key; and in Bath church the three or four windows in which stronger and more vivid colours are used stand out as quite at variance with the general scheme, and as if loudly challenging attention. The necessity for some systematic relation between the colour scale and design of all the stained glass, in a large interior, has been often insisted on in our columns, and will be until it is better attended to. Windows cannot be regarded as pictures in a gallery, each independent of the others; they are too intimately connected with the architectural design, and the effect of the transmitted light is too vivid, for that; and it is unfortunate that, in the present case, an opportunity of presenting a homogeneous effect of stained glass throughout the building has been come so near to without being fully realised.

The church contains sundry remnants of old stained glass which have been carefully preserved, partly in the centre of some of the clear-story windows, and the rest in a vertical band in the centre lights of the west window, the rest of which is at present all clear glass, except in the heads of the upper lights. When this is filled in, as it is expected to be before long, we hope that, whatever artist is employed, the same delicate and subdued effect which has been happily realised in two at least of the other large windows will be aimed at.

The old colouring of the horizontal spandrels of the fan-vaulting has been restored, and repeated in the nave vault; blue and gold predominate in this, which is a trifle too strong at present, but will soon tone down more than sufficiently.

The work of restoration has included also the reseating of the church with open seats with carved ends, of solid construction and good execution, and the removal of the numerous monumental tablets which formerly hung in "admired disorder" on the piers (a system of decoration which it has been gravely proposed to apply to St. Paul's Cathedral), and which are now arranged, with more regard to order and less detriment to architectural effect, on the wall. Here may be seen the tablet, decorated with a simple marble inlay, to the happy memory of Beau Nash, once King of Fashion in the adjoining "Pump-room"; and the jovial head of Quin, of theatrical and epicurean fame, forms the headpiece to another inscribed record. The church contains two or three monumental sculptures by Chantrey, one by Bacon, one by Nollekens (if we mistake not), and one by Flaxman, in which the sculptor's art is expended on two angels, in somewhat stiff, perhaps intentionally conventional attitudes, flanking the inscription stone; it is hardly an interesting specimen of the great artist whose name is cut on it. The Jacobean west door, decorated with heavy carved scrolls and "knops," is worthy of notice, in respect of its massive and solid construction and bold execution.

The restorations have been under the direction of Sir Gilbert Scott. As the work is spoken of as nearly completed, we presume absolute "restoration" of the exterior is not at present contemplated, nor is it at all necessary. Some cutting-out and filling-in of decayed stone would be of service here and there, and if done soon and with judgment, would preclude the necessity for any more extensive refacing, and perhaps remove the temptation to indulge in operations which have been so fatal to the effect and the archæological interest of some old buildings in this country.

DISCOVERY IN PALESTINE.

THE quarterly statement of the Palestine Exploration Fund, for January, 1875, contains matter of unusual interest. As much as seven years ago* we took occasion to point out what appeared to us to be the reason that the results of the exploration of Jerusalem, up to that time, had been so unsatisfactory; and to indicate the spots where, in our view, systematic research could not fail to obtain certain fruits. Whether owing to our suggestion or to his own good sense, Mr. Henry Maudslay,—a name well known in the engineering world,—has now been engaged for some time in excavation, at his own cost, at one of the points indicated; and the result of his labours, as reported in detail by Lieutenant Conder, R.E., is the full determination of the south-west angle of the most ancient of the walls of Jerusalem. A solid tower of native rock, about 25 ft. square, has been scarped or hewn out, to a height of 20 ft., above a rock platform; from which a second sheer descent of 25 ft. and upwards formed the outer line of the city wall. The direction of this scarp, as continued to the north and to the east of the tower, shows that the latter occupied the south-west angle of the wall. A large rock-hewn cistern, behind the tower, opens on the level of the rock platform; and exactly corresponds to the description given by Josephus. The scarp facing the south rises from a second rock platform, of width hitherto undetermined, to a height of 30 ft. The solid basis of a second tower, also accompanied by a cistern, and with a height of 30 ft., has been also discovered at the corner of the cemetery. The work of the scarp Lieutenant Conder describes as magnificent. A counter-scarp, forming a ditch of about 20 ft. wide, has been exposed in one point; but it is not yet made clear how far this ditch was cut. The reference made to the crossing a ditch, or "gutter," in the storm of Jerusalem by Joab, is illustrated by this brilliant discovery. That the work of the Jebusite kings is here laid bare, however it may have been strengthened by later masters of Jerusalem, there seems but little room to doubt.

The progress of the Ordnance survey continues to be rapid and exhaustive. Not only has Lieutenant Conder added a number of important identifications, including that of the Royal and Levitical city of Debir, to our previous knowledge of Palestine; but he has discovered the key to the whole of the topographical arrangement of the Book of Joshua. Thus, within the same year, the first incontestable definition of the most ancient line of the wall of Jerusalem has been attained; and the position that the Book of Joshua is unquestionably a contemporary Domesday-book of the conquest and settlement of Palestine, has received an unexpected and valuable confirmation. We prefer referring our readers to the report, to making any attempt to condense what is there presented in a very distinct form.

We take the opportunity of remarking that, in the discussion which has lately arisen as to the supposed discovery of an inscription marking the limits of Gezer, and the deductions proposed as to the determination of the Hebrew cubit,—which is already accurately determined to be 48 barley-corns, or 16 English inches, in length,—certain main elements of the question have been left out of sight. The letters of the inscription, which have been engraved from a photograph, are not, as has been stated, of the square Hebrew type, nor do they at all nearly approach it. One of them closely resembles a character inscribed on one of the foundation courses of the fortress wall of the Temple, figured in the "Recovery of Jerusalem." This is, of course, in favour of the antiquity of the inscription. On the other hand, it is not possible to read the word TECHOOM in the inscription, except by the aid of a strong resolution to do so. There is nothing in any way resembling either a final M in Hebrew, or a Phœnician, or old Hebrew M. The mark which has been taken for the first letter of the word Gezer is not a G, either of the Hebrew or of the Phœnician alphabet. And the idea that a line of inscription begins at the right hand in Hebrew letters, and at the left hand in Greek letters, meeting about half way, appears to us to be unworthy of serious comment. Assuming that the boundaries of the Hebrew cities were visibly marked (which there is authority in the Talmud for doing), two points have to be borne in mind. First, the marks were on hills, or visible points; as doubt is expressed as to the distance from the city wall passed over by a traveller in a valley. Secondly, the outer boundary could not have been an exact square, even in the very unlikely case of the city itself being square. This is proved by the precise directions that are given in the oral law for not passing the *Techoom*, or Sabbath limit, of 2,000 cubits from a city wall in any direction. In the case of a square circumscribing a square, the angles of the outer square must have been more than 2,000 cubits from any part of the inner wall. This part of the outer boundary, therefore, if traced on the ground, must have been rounded off. If it were not traced, its position was defined by the fact that the Jew was forbidden to walk more than 2,000 ordinary steps in any direction beyond the city verge on the Sabbath. This limit of the *Techoom*, or Sabbath restriction, is the only one to which any reference is made in the Talmud. Maimonides, in his treatise on the Sabbath; Elias, in his Tisbi; Rabbi David and Rabbi Solomon, in their Commentaries, are all full, clear, and accordant on this subject. The laws regarding it are founded on the expressions in the Bible; and it is thus as certain as anything of the kind can be, that no boundary stones, erected under the Jewish law, can mark the Sabbatical suburbs of any city by being erected at four angles.

*See *Builder* for 7th December, 1867; 4th January, 1868; 20th June, 1868.

THE MARYLEBONE NEW POLICE COURT BUILDINGS.

IN consequence of the old police-court in High-street, Marylebone, having for some time past been found unsuitable for its purpose, new police-court buildings have just been erected in Seymour-place, Marylebone-road, and are now ready for occupation. We understand that the magistrates will remove from the High-street court, and take their seats in the new court, in the course of about a month.

The new building, which is situated on the west side of Seymour-place, and almost immediately adjoining the county court and the public baths, has a frontage to Seymour-place of about 70 ft. in length, and is a little more than 30 ft. in height. In addition to a basement it consists of a ground floor and story above. The ground floor portion of the elevation, up to the first floor windows, is in rusticated Portland stone, the upper part being in white Suffolk brick, with Portland stone dressings. There are two entrances, one at the north and the other at the south end of the elevation, 6 ft. in width, ornamental piers and carved and moulded trusses supporting a projecting head. The central portion of the elevation projects about 2 ft. beyond the north and south sides of the frontage, and is surmounted by a pediment rising several feet above the main cornice, the pediment enclosing a sculptured representation of the royal arms. In addition to three-light windows in the central portion of the elevation there is a range of six windows in the ground floor and upper story, those on each side of the latter having ornamental pediment heads, whilst the central three-light window is arched. The entrance at the south end is exclusively for the magistrates and professional men, whilst that at the north is for the general public.

The last-named entrance leads into a spacious hall, or general waiting-room, the walls of which, to a height of 7 ft., are faced with red glazed

brick. The court-room, which is in the centre of the building, is approached from the entrance-hall. It is a large and commodious apartment, 24 ft. in width by about 40 ft. in length. The lower portions of the walls, to the height of 7 ft., are faced with ornamental glazed brick, in red, blue, and stone colour, whilst the upper portions are in panels, divided by moulded pilasters with capitals. The ceiling is also in panels, and is surrounded by a moulded cornice. The court is amply lighted by a lantern light in the centre of the ceiling, and also by windows on the south and west sides. The bench for the magistrates is raised about 2 ft. above the general floor level, and there is every requisite accommodation for the officers of the court, professional gentlemen, and witnesses, together with a spacious area for the general public. A corridor, running the entire length of the ground-floor on the east side of the court, leads into the several offices for the magistrates, clerks, and other officials, these offices being in the front of the building, and overlooking Seymour-place. There is also a similar corridor on the west side, leading to witnesses' and prisoners' waiting-rooms and other offices, and also to prisoners' cells, of which there are six in number, as well as three in the basement, making nine in all, which are heated with hot-water pipes, and secured by perforated iron doors. Magistrates' private rooms are at the south end of the first-floor, and the keeper's apartments at the north end. We have omitted to state that at the extreme south end of the building there is a carriage entrance for the arrival and departure of the prison vans, by which prisoners will be conveyed to and from the court in entire privacy.

The building has been erected by the Commissioners of Works, under the superintendence of Mr. Pullman, Messrs. Jackson & Shaw being the contractors.

VALUE OF LAND FOR BUILDING PURPOSES IN THE NORTH OF ENGLAND.

A MONTH since a piece of land measuring five acres and a half, running from Yarm-lane to Mill-lane, Stockton, was advertised for sale by auction, but was bought by private contract for 8,500*l.*, and it was considered that the purchasers had paid rather a high figure for their venture. The same site has, however, again been sold to Messrs. Craig, Henderson, & Stainsby, of Middlesbrough, who have given 13,000*l.* for their bargain, the first purchaser having cleared 4,500*l.*, after holding the land for about fourteen days.

DEMOLITION OF WHITECHAPEL PARISH CHURCH.

SALE OF THE BUILDING MATERIALS.

THE old parish church in High-street, Whitechapel, as we have previously mentioned, is about to be taken down, and a new one erected on the site, and on Wednesday last the materials of the old structure were sold on the spot by Messrs. Moore, when the interior of the church, in which the sale took place, was crowded with persons connected with the building trade. The materials were divided into seventy lots, and included, according to the catalogue, about 300,000 bricks, 100,000 plain tiles, 50 tons of lead, 1,500 square feet of flooring, together with the interior fittings; comprising, amongst other articles, 104 pews, the oak inclosure case of the organ, the carved oak pulpit on fluted columns, and a handsome stained and illuminated window over the chancel, at the east end of the church. With the exception of the lead, for which there was an active competition, the several lots realised little more than nominal prices. The moulded and panelled front enclosures of the galleries, with fluted oak columns and capitals, were sold for 18*l.* 10*s.* Two carved oak and gilt figures, "trumpeters," on oak pedestals, fetched 24*l.*; the organ-case, described as "carved and gilt, with carved oak trusses and gilt cherubim, surmounted by four richly-carved and gilt figures," realised 63*l.*; the carved and gilt oak reredos fetched 6*l.* 10*s.*; the pulpit, 12*l.* 10*s.*; and the 104 pews, which were divided into nine lots, realised an aggregate sum of 27*l.*; the whole of the timber and stone in the belfry and cupola, including the inner staircase, were sold in three lots, for 8*l.* 5*s.* Four massive Portland stone circular columns, with carved Corinthian capitals, about 2 ft. in diameter, and 28 ft. in height, were knocked down for 18*s.* each. The stained glass window over the chancel, the subject of the central illuminated panel being "The Adoration of the Shepherds," with the inscription "Unto us a child is born, unto us a son is given," was put up at 15*l.*, and ultimately sold for 17*l.* 10*s.* It was stated in the room that the cost of this window, which is 14 ft. in width, and 18 ft. in height to the crown of its circular arch, was between 500*l.* and 600*l.*, and that should the purchaser be able to remove and replace it elsewhere, without material breakage or damage, he will in all probability realise a substantial profit. As we have already stated, the lead formed the chief attraction to purchasers. It was divided into three lots. That on the east of the roof realised 140*l.*; and that on the west 154*l.*; the lead covering of the belfry and cupola fetching 190*l.* For the last-named lot there was an unusually animated competition. The biddings having rapidly risen to 120*l.*, one competitor, more spirited than the rest, offered 190*l.*, at which sum it was knocked down to him. The aggregate proceeds of the sale amounted to 926*l.*

REVIEW OF SANITARY SCIENCE IN NOTTINGHAM.

UNDER this title a paper was read by Mr. William Richards, Chief Sanitary Inspector of Nottingham, in the literary section of the Nottingham and County Liberal Club, on the 12th inst.; Mr. Councillor W. Ford in the chair. At the close Mr. Richards said, although great progress has been made in sanitary science during the last twenty-five years, there is still a large field open for further advancement. The continued high rate of infant mortality is a subject which demands serious consideration; the better education of the people in the laws of health, and last, but not least, better houses for working men, which will greatly tend towards the furtherance of the social and moral elevation of the community generally. The results of these improvements, as far as affecting vital statistics, are most encouraging. The mortality for the four years from 1842 to 1847 was 35 per 1,000; for the five years from 1848 to 1853, 29 per 1,000; and for the five years from 1868 to 1874, 24 per 1,000. This would represent a saving of 2,000 lives in the five years ending 1873, as compared with the five years ending 1853, and although these various improvements have cost a large amount of public money, it will be generally admitted that increased health, comfort and social progress have been the result, and that the sanitary rate is less expensive and more satisfactory than the fever rate.

ELECTION OF DISTRICT SURVEYOR OF ST. MARTIN'S-IN-THE-FIELDS.

AT the meeting of the Metropolitan Board of Works, on the 22nd inst., applications from twenty-seven candidates for the appointment of district surveyor for the district of St. Martin-in-the-Fields and St. Anne, Soho, were received. Mr. Roche moved that it be a condition that the district surveyor should keep open his office during the business hours of the day, say from ten to four. The district surveyor of Paddington had opened a little office, and put up a small board, stating that the office "hours" were from eleven to twelve. He had occasion to call there on the 21st inst. at a quarter-past twelve, and could not see the surveyor. For a large parish like Paddington this was a great inconvenience. Mr. Freeman said surely that was only a temporary arrangement [or there is some misconception]. A show of hands was then taken, and the number of candidates reduced to six, and the election ultimately resulted in the appointment of Mr. Robert Walker, of 10*a*, King's Arms-yard, Moorgate-street.

Brampton New Workhouse Contracts.—The Guardians of the Brampton Union, on the 20th inst., let the building of the new workhouse for 10,528*l.* 6*s.* 3*d.*, in the following contracts:—Sproat, Talkin, Brampton, mason's work, 6,570*l.* 15*s.* 8*d.*; Winthrop, Brampton, joiner's work, 2,197*l.* 8*s.* 3*d.*; Gibson, Leeds, plumbing, glazing, &c., 600*l.*; Nanson, Carlisle, slating, 749*l.*; Canning, Carlisle, painting, 95*l.*; Ormerod, Carlisle, plastering, 316*l.* 2*s.* 4*d.*

WASHED AWAY IN A SEWER.

MR. LOVEGROVE, surveyor to the Hackney Board of Works, has reported a terrible accident that occurred to two men, named Heale and Webster, whilst at work in the high-level sewer, in the Manor-road, Stoke Newington-road, on Friday last. They had fixed a 9-in. drain-pipe in the sewer, and were returning along the sewer, when suddenly a rush of water came upon them. The force of the stream threw them down. Webster managed to get to the side entrance, clung to the side, and thus escaped destruction. Heale, however, was carried away. The body has not been found, and as there was nothing to intercept the flow between Stoke Newington and Barking, it is probable that the body may be washed ultimately into the Thames. Query, Would not a running-rope, to pass through rings fixed to the side of the sewer a little above the ordinary water level, or a small permanent chain attached in the same manner between each manhole, afford a means of escape to workmen who are obliged often to pass through the rushing waters of our main and outfall sewers?

THE STORM IN THE NORTH.

Carlisle.—Last week a gale swept over Carlisle and the district which has not been equalled in severity since the storm of January, 1839, involving a great destruction of property. On Tuesday night and Wednesday morning the tempest raged with fearful force. The strength of the wind was something extraordinary in these latitudes, and the amount of damage done to property in this city was exceptionally large. Shutters were blown off shop-windows in the streets, chimney-pots came rattling down with alarming frequency, and in many places not only were the chimney-stacks stripped of their tops, but the chimneys themselves were blown down, smashing in roofs and doing other damage. Numerous other towns in the district were equally damaged.

Sunderland.—A terrible gale blew here early on Wednesday morning, doing considerable damage, especially at Monkwearmouth. The new Free Methodist Chapel, in Roker-avenue, which was to have been opened that day, has had part of its front blown away. At St. George's-terrace, Roker, an unoccupied house had its roof taken off. A portion of the wreck was carried a distance of thirty yards, and some of it was driven against the back windows of the adjoining house.

Glasgow.—An accident of a somewhat serious character is reported from the neighbourhood of Glasgow, as having resulted from the gale of Tuesday. The west gable of a Roman Catholic chapel in course of erection at Cardowan, near Stepps Station, was blown down. The masonwork of the building had been almost completed, but a number of workmen were still engaged at the place. Four men were on a scaffold raising a prop against the gable-wall, when a fierce gust of wind drove the mass of masonry in upon them. The whole were buried amidst the ruins except one, Naismith, who, as the wall descended, threw himself through the gable window, escaping almost unhurt. After several minutes' labour on the part of the other workmen, who were attracted to the spot by the cries of alarm, Downie was released, but he was so severely injured—both his legs being broken—that he died in less than an hour. The next man released was Gunn, who was conveyed to the Glasgow Infirmary, where it was found that one of his legs had been broken, and he was otherwise severely injured. The other man, Lorney, was extricated shortly after, but the injuries he had sustained were not of a dangerous nature.

Belfast.—This neighbourhood was, on Wednesday, visited with a storm of unusual violence, causing a great damage. There was a perfect hurricane, sweeping chimney-pots and slates off the roofs, and carrying them about in all directions, while in many streets signboards and projecting lamps were blown away. A portion of a house at Sydenham was blown down, and the inmates had a narrow escape; and the side-wall of a church at the Knock was so much bent that it will have to be taken down. A portion of the Orange Hall at Holywood was also blown down. The new Methodist church, which is in course of erection at Carlisle-circus, was considerably injured, a large portion of the masonry having been blown off the top of the building. One of the lighthouses in Belfast Lough was also blown down.

THEATRE ROYAL, WORCESTER.

A COMMODIOUS new theatre has been erected in Worcester from the designs of Mr. C. J. Phipps, architect. The pit holds about 600 and the gallery 700 persons, while the balcony-stalls seat 106, and the upper circle behind the balcony 100. Including the eight private boxes, accommodation will, therefore, be afforded to more than 1,500 persons. The decorations have been executed by Mr. Edward Bell, London. Over the stage is emblazoned the Worcester coat of arms, with the motto, "*Semper fidelis*," while above the stage boxes are two figures painted by Mr. Alfred Thompson, representing Comedy and Tragedy. The theatre is arranged on the plan of the Gaiety Theatre, London. It is lighted, not by a centre chandelier depending from the roof, or by gases round the front of the galleries; but by a constellation of seven gas-stars fixed in the concave centre of the ceiling. The theatre has been promptly built by Mr. Dixon, contractor, Worcester; the sunlight has been erected by Messrs. Strode, London; the upholstery work has been executed by Mr. Williams, Worcester; and the chairs have been manufactured by the Messrs. Wadman, Bath.

SCHOOL-BOARD SCHOOLS.

Brecon.—A new school, at the corner of St. David's-street and Orchard-street, has been erected by the School Board for the united school district, and was opened on the 18th inst. The site of the building is 960 square yards in extent, and the cost of purchase was nearly 300*l.* The building is detached from other buildings, being bounded on two sides by gardens. The contract price was 1,280*l.*, and the extras do not exceed 10*l.* The school, which has been erected by Messrs. Williams & Sons, of Brecon, from the design of Mr. William Williams, the county surveyor, is in the Gothic style, the exterior being of local stone, with Bridgend dressings in the front and local stone dressings in the back. There is a projecting bellcote at one end. The building consists of one schoolroom for boys and girls, 48 ft. by 20 ft.; a class-room, 18 ft. by 15 ft.; and two porches, 16 ft. by 5 ft. Accommodation is provided for 150 children. The roof is open timbered, of pitch pine, wrought and finished, and the furniture is of pitch pine. The rooms are lighted by windows in sashes and frames, and gas has been laid into the building. There are two open fireplaces, and ventilation through the outer walls is secured by openings just below the wall fret. The building is covered with Bangor and Carnarvon slates laid in alternate courses. The chimney-stack is ornamented with dressings of local stones. The playground, which is enclosed in walls with four pillars, is 70 ft. by 80 ft. in extent. On the south side of the building is a stone coping and iron rails, and there are two entrance-pillars on that side and two on the east side. The east and west sides of the site are bounded by walls with stone copings.

SCHOOLS OF ART.

Manchester.—The annual meeting and prize distribution of the Manchester School of Art was held in the Lecture Theatre of the Manchester Royal Institution, the Mayor (Mr. Alderman King), presiding. Mr. E. W. Marshall (the hon. secretary) read the treasurer's balance-sheet, which showed an income of 1,652*l.*, against an expenditure of 1,406*l.* He also read the committee's report, which stated that prizes exceeding the average number have been awarded to the pupils by the Science and Art Department, and they recorded their gratification that the Princess of Wales Scholarships of 25*l.* and 11*l.* respectively, had again been gained by students of this school. Mr. Birley, M.P., who delivered the prizes, impressed upon the students that art cultivation and all that it led to was not to be considered the inheritance and the exclusive possession of the wealthy, but that it ought to be the heritage of the many. It had been often urged that the people of this country had no natural aptitude for what was called art; but he believed there was good authority for maintaining that there was no reason why, with proper appliances, proper exertions, and proper uses of those talents with which Providence might have gifted our art students, we in this country should not attain very fair rank among the nations as regarded the practice and appreciation of art.

Taunton.—A public meeting was held, at the School of Art, Bath-place, on Wednesday, 13th, when the prizes awarded by the Government Department of Science and Art were distributed to the successful candidates; Mr. Arthur Malet, president of the school, taking the chair. In opening the proceedings, the Chairman said that the school was progressing very fairly and very well. Everybody knew the necessity at the present day for pressing forward, and that art learning was no small part of the education now required. Art and science were needed by all who had to make their way in the world, and without these those who worked with either hand or brain would find themselves in the background. Continental nations were pressing forward in the line of science and art, and unless we did the same for our sons and daughters we should find ourselves left behind not long hence.

Cork.—The annual public meeting for the distribution of prizes of the Cork School of Design has been held in the Theatre of the Institution. The Mayor occupied the chair. Mr. James Brennan, head master, read the annual report, which stated that the number of pupils who passed through the school during the year ending June 30th, was 188, and there were at present attending classes 159. In the subjects of practical plane and solid geometry, and machine drawing, all those who presented themselves for examination were successful, and six Queen's prizes were obtained. The report renewed the complaint of the unsuitability of the premises for a School of Art, badly lighted, draughty, with a leaky roof, and rotten floors. The Mayor having distributed the prizes, said he had great pleasure in seeing the school so flourishing. He, however, fully participated in the opinion expressed by Mr. Brennan as to the disreputable condition of the building in which the school was located; it was unworthy of a great city. He had seen ruins in many countries—had seen many in Rome, in Pompeii, and elsewhere, and he should say he had seen ruins that were in a far better state of preservation than the ruin in which they were assembled. It had been one of the dreams of his life to see a free library in Cork, with a museum and a school of art altogether, which would be one of the best civilisers they could introduce into their midst.

COMPENSATION CASE.

ON the 19th inst., Mr. Under-Sheriff Burchell and a special jury attended at the Christ Church School-room, Ealing, to try the case between the executors of the late Lady Delipierre and the Ealing Local Board, the former being the owner of the land near Perrivale Church, required by the local Board for sewage and irrigation purposes, in connexion with the new northern district lately included within the boundary of the Ealing district.

The jury assembled at ten o'clock, and after the court had been formally opened, they were conveyed to Perrivale to view the land. On the re-assembling of the jury, Mr. Hawkins, Q.C., and Mr. Armstrong (who appeared for the local Board), and Sir Henry James, Q.C., and Mr. J. O. Griffith (who represented the executors), held a private consultation, the result being that after a short deliberation the jury awarded the executors, by consent, a sum of 4,100*l.*, for the land owned by them, all interest in the same to be given up. The land in question is about 22¼ acres.

A large number of witnesses were engaged on either side, including Messrs. Driver, Clark, Ryde, Oakley, Prickett, H. Jones, and others.

Mr. Charles Jones, the engineer to the Board, has designed a scheme of drainage and irrigation (with previous deodorisation and classification), similar to the works lately completed by him at Tonbridge, Kent. The plans have received the consent of the Local Government Board, and will shortly be ready for tender.

Church Restoration.—The church of Langton Matravers is to be rebuilt at a cost of 3,500*l.*, the present accommodation being inadequate for the parishioners, who are chiefly labourers and quarrymen.——Bere Regis Church, Dorset, is in the hands of the restorer, the plans having been prepared by Mr. Street, of London. The cost will be nearly 5,000*l.*——The parish church of Folke, in Dorset,—a peculiar example of a post-Reformation edifice,—is to be reseated and restored at a cost of 1,075*l.*

ST. BARTHOLOMEW'S, BRIGHTON.

IN our volume for last year (xxxii., p. 909), will be found a view of the exterior of this church, built for the Rev. Arthur Wagner, under the direction of Mr. Edmund E. Scott, architect, together with some descriptive particulars. To these illustrations we now add the ground plan, and a view of the interior of the church looking towards the chancel, which in this case does not mean towards the east, but the north.* The total length of the church inside is 170 ft., and the height to the ridge is 135 ft.

There is a choir organ by Holditch: the gallery for the grand organ is not yet constructed, but the foundations are prepared. The porch is not yet built. The reredos is formed with crimson velvet hangings; the table is of oak, with painted figures on a gold ground in the panels. At night the church is lighted by circles suspended from the triforium on brackets, all gilt. The total cost of this large fabric, including porch and vestry, will be about 16,000*l.*

INFLUENCE OF TRADITION IN THE TREATMENT OF GOLD AND SILVER SMITHS' WORK.

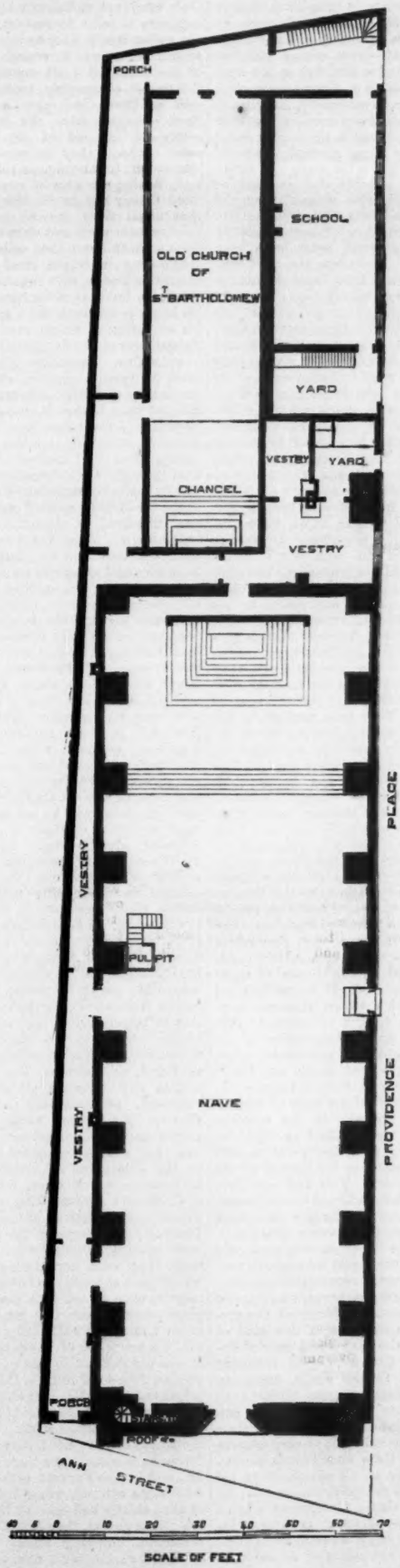
ARCHITECTURAL ASSOCIATION.

AT an ordinary general meeting of the members held last Friday evening, the 22nd inst., under the presidency of Mr. George H. Birch, the following gentlemen were elected members:—Messrs. A. Ardron, J. Gibson, jun., T. E. Collcutt, A. W. Cross, W. Renwood, W. E. Brown, S. C. O. Pinchin, and R. M. Driver.

The secretary (Mr. S. Flint Clarkson) said that the first visit of the Association was paid on Saturday afternoon last to the new buildings of the National Gallery, and he had much pleasure in proposing a vote of thanks to the architect, Mr. E. M. Barry, for the facilities he offered for their visit. The vote having been carried,

Mr. R. H. Soden Smith, M.A., then read a paper "On the Influence of Tradition in the Development of Gold and Silver Smiths' Work." He commenced by saying that the subject was one which, as it dealt with a class of productions not always included within the province of fine art, he should not perhaps have selected it for the consideration of the Association had he not been assured that the study of the lesser arts was not deemed outside their province, although they, as an Architectural Association, were united for the promotion and practice of the chief and greatest of the Fine Arts. He proposed to consider briefly some of the developments of the goldsmith's art in ancient and mediæval times; to show the durability of the traditions which influenced it; and to point out that these traditions became in some instances the inheritance of races who had triumphed over those from whom the knowledge was originally derived. Goldsmiths' art cannot at present be said to have a history: other arts were more fortunate. There was a bulky and important work known as the "History of Art by its Monuments"; but in the case of that with which they had to do, its monuments, minute, rare, and precious, were themselves its history, and it was only after close personal study of these often exquisite works that one could arrive at satisfactory knowledge of the processes and development of the art. The earliest goldsmith's work to which they could assign a pretty accurate date was that of the Egyptians, and no other was more strongly and peculiarly characterised. In no other was the influence of early tradition more apparent or more durable. Like all the art of those wonderful people, their goldsmiths' work was conceived in a spirit that made it unlike any other in the world; its conception was also carried out with a skill, power, and completeness which had never been surpassed, proving that the Egyptian workers in precious metals were not less masters of their tools than their fellow artists who wrought in the hardest basalt, and the most stubborn varieties of porphyry. The antecedents of their art they were ignorant of. When it was first become acquainted with,—and some specimens extant were in all probability more than 3,600 years old,—its character was fixed, and its processes almost perfect. Already tradition had asserted its authority; conceptions possibly derived from distant and diverse nations had been assimilated, modified, and finally fettered in Egyptian fetters; the real work was

* See p. 99.



ST. BARTHOLOMEW'S CHURCH, BRIGHTON.—*Plan.*

already done, the track cleared, the bounds set up and fixed to prevent any straying away of too exuberant fancy, and most wonderful was the mastery of the technical processes which was attained; and this, 1,800 years before the Christian era. They would give much to know what preceded the fixed tradition and consummate skill. When they looked closely into the matter a few considerations occurred. In Egyptian jewelry, including the most ancient, an effect of decoration, evidently much relied upon for producing the gorgeous hues which they loved, was given by a tesselation or inlay of brilliantly-coloured stones, jaspers, agates, lapis-lazuli, or by glass pastes to imitate still brighter colours. These were harmonised with judgment, and the pieces fitted with excellent skill into partitions or cloisons of gold, each portion often shaped as best suited the requirements of the design. Such were some of the jewels which came to light when amongst the tombs of Thebes the rich coffin of an ancient Egyptian queen was fortunately discovered. This was in 1859, and the gorgeously decorated case was found to contain the mummy of the Queen, Aah Hotep, wife of the monarch Rames, and that the date was at least 1800 B.C. The jewels deposited in the mummy-case were most splendid, and were royal insignia, probably buried with the queen's body, by order of her son, as his name, Aahmes, occurred on some of them. They included a diadem of gold, a pectoral plate, bracelets, chains, pomiards, and other gorgeous objects, and the workmanship upon them was of the most complete and admirable character. He specially mentioned them because they offered remarkable examples of the rich inlay work in stones and coloured pastes to which he had just alluded. In fact, the finest of these jewels depended for their splendour of effect chiefly on this ingenious and richly-coloured ornament. The pectoral plate, and some of the bracelets, were almost entirely composed of it, and on one of the latter was a representation of a vulture, formed of a *cloisonné* mosaic of lapis-lazuli, carnelian, and coloured glass pastes. Besides these examples there was in the Louvre a fine specimen of similar work, and in the British Museum were several jewels showing the rise of the same process. Now it appeared to him that such a method of decoration as this was likely to have had its origin in a land where precious stones abounded, and that a love of gorgeous colour found its expression in their use, such a tradition being carried to a country where the most splendid gems did not exist, as was the case with Egypt, the artists who received it setting themselves to produce similar effects by the use of imitative glass pastes of the richest hues they could obtain. If this be so, it would be to the East, probably to India, that they would turn for the origin of such a tradition. However the fact might be, and from whatever source Egypt might have obtained her goldsmiths' processes, it was undoubted and most remarkable that at the remote period to which these works belonged an excellence was already arrived at which in some respects had never been surpassed in any age or in any country. This praise of their work was justified, to take one example, by the treatment of a pendant in form of a scarabæus, which was attached to an exquisitely-wrought chain among the jewels of this ancient queen. Nothing could exceed the skill of the workmanship of this remarkable object, not even the Greeks, of whom he had shortly to speak, could go beyond the perfection with which this design was carried out. Assyrian goldsmiths might well come next after Egyptian under his consideration, but that the means of knowledge at their command were not sufficient for his present purpose. That they worked largely in the precious metals was known, lavishly indeed, and on a magnificent scale; but their gorgeous works had perished, and not enough remained to enable them to trace the history and development of their labour in gold, as they could that of their sculpture and various kindred arts. The tradition of their splendour had an Oriental stateliness about it that kindled the imagination; the couches, and tables, and thrones of gold, the statues and palaces overlaid with gold, all the pomp of personal adornment of jewels, and collars, and crowns of precious metals; but they turned away from these things, which were now little more than a vision, to delve their antiquarian way through piles of ruins and vast mounds of almost undistinguishable desolation. Passing, then, from these ancient nations, they came to the seafaring race, who had possessed themselves of the carrying trade of

the ancient world,—he meant the Phœnicians, as they were, if not the originators, at least the disseminators, of much knowledge of metal-working processes. Their own art, as far as they knew it, showed little that was original, but was influenced in the first degree by traditions of Egyptian work, and also in a less measure by Assyrian, Etruscan, and Persian motives, and, later in their history, by Greek. As the Phœnicians made their influence felt along the shores of the Mediterranean, and beyond it, so they carried to their scattered settlements or trading places the traditions of nations of an organisation different from, and more artistic than, their own; they themselves seemed to have possessed no strong art individuality, but rather to have reflected what they received from others. Thus objects of their workmanship often presented a perplexing problem to the student, and cannot at times be identified with certainty as of truly Phœnician production, except with the external aid derivable from the circumstances and conditions of their discovery. Amongst the nations that profited by Egyptian traditions, prominent above all were the Greeks. The tradition was filtered, doubtless, by Phœnician intervention, and by Asiatic influences; nevertheless, it had in it the seed of vitality which characterised all true art. Their soldering, or some analogous process the methods of which might possibly have reached them from India, was brought to extraordinary perfection. The ease and certainty they seemed to have arrived at in some of its most difficult applications gave a special character of delicacy and refinement to the details of their work. By a manipulative skill, which had never been surpassed, they succeeded in clothing surfaces with a dust of golden granules too minute to be discriminated by ordinary sight, which produced a sense of richness, a warmth of colour,—if he might be allowed the expression,—unattainable by any other method. To one uneducated in the study of those processes, it might appear that an equal effect could be obtained by casting or chasing at a much less expenditure of time and labour. But it was not so. Casting, however dexterous, was clumsy in comparison, and the result was wanting in the clearness, the light and shade of the original method; chasing produced an effect, but of a different nature. The Greeks, in elaborating and perfecting their difficult process, were not merely exhibiting a *tour de force* of manipulative dexterity; but were aiming at a result to which their true artistic sense directed them. They owed it to the well-instructed skill of a modern artist in gold that within the last few years this most delicate process of decorating surfaces with granules of gold had been re-discovered, and was now practised with admirable success. The beaten up, or *repoussé*, work of the Greeks, also exhibited the utmost excellence, showing at times so entire a mastery of the process that no perception of its difficulties remained to distract attention from the result. The examination of any considerable collection of Greek work would justify this praise, for the productions of the finest period were rare; and, moreover, they could not suppose that the very best had come down to them. Yet enough remained in such collections as those of the British Museum, the South Kensington Museum, and the Louvre to amply repay the most careful study, and to convince the student how difficult it was to rival their skill. In surface-chasing, also, the Greeks greatly excelled; and the results of this process, as but little technical knowledge was required to appreciate them, impressed the casual observer more than those attained by the difficult soldering and beaten work of which he had spoken. Their chasing was, indeed, admirable. It exhibited the freedom and mastery which proved that all technical difficulties had been overcome, together with the delicacy and control which belonged to work which was felt, and not merely *executed*. It was when studying these seemingly minute points, and appreciating their results, that one felt the almost immeasurable distance between the ancient Greek artist in gold, and too many of our countrymen, working in the precious metals, who supplied the modern market with its popular wares. Indications there were, happily, of a better taste; and he rejoiced to know of some who had taken a long stride beyond the senseless rubbish of golden padlocks, horse-hoofs, and fetters, valued by their weight in metal, and hung in garish profusion on the costume of some who might be leaders of taste, if not of fashion. But beyond even this excellent skill in surface-chasing was the work of those incomparable artists in intaglio-cutting in gold. Many, no doubt, of these intaglios—he alluded chiefly to those occurring on finger-rings formed wholly of gold—were rather sketches than elaborately-finished works, and in the mortuary rings the indications of figures were often slight and rude. But, occasionally, intaglios in gold occurred of extraordinary excellence worthy of the artists who produced in the harder metal of their coin-dies the finest work of its special kind that the world had ever seen. A Greek intaglio was, indeed, a wonderful production; and while they noted with astonishment the mastery they possessed over the stubborn materials, even of sapphire, they felt how completely the comparatively soft gold must have been under their control. Moreover, the gold they employed, when obtained from Transylvania, no alloy being added, was wholly pure, the gold having the least portion of natural alloy of any that was known. Lastly, he might mention their skill in the production of woven wire-work, and the refinement and delicacy with which they employed it, so as to take full advantage of its surface, penetrated by light in its minute interstices, and the undefinable grace which it added to designs that might otherwise have wanted somewhat of the peculiar justness of proportion and freedom at which they aimed. The origin of Etruscan art in general was a question so difficult, that no satisfactory solution of it had yet been offered, and in the special branch of it with which he had at present to do, their skill was such that the inquiry respecting the sources of their knowledge became peculiarly interesting. Their singular skill as goldsmiths had long been acknowledged by those who had paid close attention to these inquiries, and owing to the fact that their sepulchres were respected, perhaps sometimes not discovered, by their Roman conquerors, and that in these sepulchres were often deposited treasures of the jeweller's art, they had the means of becoming more familiar with their goldsmith's work than with that of any other nation of antiquity. They were masters of the various processes of casting, beating up or *repoussé*, soldering, wire-drawing, and plaiting. Especially they availed themselves with skilful judgment of the ductility of the metal; their twisted wire-work, used as an enrichment of surfaces, was delicate and elegant; while their fine wire chains were admirably woven. They also possessed the art of clothing surfaces of the metal with a gold dust of the most minute granules, and in the practice of this difficult work they were scarcely inferior to the Greeks. It was probable that the same tradition taught this peculiar process to both nations, but they had at present no certainty, though they might form some conjecture as to whence it was derived. At all events, in the hands of these ancient artists it was brought to perfection; rounded and otherwise varied surfaces were covered, and various designs of ornament successfully indicated. As an illustration of the permanence of the tradition of goldsmiths' work, it seemed never to have been wholly lost, for, in the less frequented parts of Central Italy, workmen were found, possibly of the race of ancient Etruscans, who still wrought in the precious metals, using some such method as that described, and retaining such manipulative skill that their aid was of value in the revival of the antique forms of jewelry. This fact also illustrated the truth, too often neglected or overlooked, that skill which required peculiar powers of sight and touch had a tendency to become hereditary. The beaten work of the Etruscans was often very remarkable, and as their gold was usually employed thin they had much recourse to this very effective method of giving richness, variety, and play of light to its surface. Many of the earrings were exquisite specimens of this kind of work, combined with the corded and beaded decoration which they also used with excellent judgment and effect. On the whole, ingenuity and elaboration of design, great richness of general effect, together with minuteness and dexterity of manipulation, characterised their goldsmith's work. The influence of very ancient tradition, external to them as a Tuscan people, was apparent, and, as at all periods their art seemed to have been receptive rather than inventive, the effect of Greek intercourse became ultimately more or less obvious. It seemed beyond doubt that early Egyptian traditions gave a character to their art, the points of resemblance being in certain directions frequent and striking. Another influence was traceable, which seemed derived from Asia, pervading not alone the minute objects under their consideration, but their whole art sufficiently to have induced some inquirers to refer to eastern lands the origin of the nation itself. Next to the Etruscans it would seem most natural to consider the development of the goldsmith's art among the Romans, but this great conquering nation cannot be truly said to have had any art of their own; they emerged from the barbarism of their origin by the aid of the Latins and Etruscans, whom they subdued. The African luxury of Carthage next told upon them, and, finally, the arts of conquered Greece subdued them; but in all this there was nothing that aided their present inquiry. Whenever good artistic work was shown to have emanated from ancient Rome they called it Greco-Roman, recognising in it the hand of the subtle and adaptable Greek, who found it suited well with the fallen fortunes of his race and nation to make his home in the Imperial City, and to trade upon his art instincts, which, even among the vulgar Trimalchios of the day, it had become the fashion to patronise. Byzantine goldsmith's art would seem at present another example of the predominance of foreign influence, but it essentially differed from Roman in that the traditions might be said to have taken root, coalesced, and produced a sufficiently marked and individualised result. The chief interest of Byzantine art was that through it one element of Oriental tradition chiefly made its made into Western Europe. No doubt the Gothic nations spreading to Spain in one direction, to Scandinavia in the other, carried with them the strong Orientalism of their semi-barbaric art; but this was different in motive and character from that of Byzantium, and, moreover, for a time it yielded to the influence of the latter. Nothing could so aptly illustrate perhaps the combination of the two than reference to the astonishing mass of golden spoil discovered in Roumania in 1837, and called the Treasure of Petrossa; one golden salver found being alone worth, in weight of metal, nearly 1,000*l*.; but their archæological importance was still greater. They included Byzantine work, in which the tradition of classic art remained, overlaid with Oriental influence; and there were exhibited gorgeous but barbaric specimens of the jewelry of the Gothic tribes that overran ancient Dacia. These latter objects were characterised by an enrichment of inlay-work, composed of slices of garnets and various coloured glass pastes. In referring to the durable nature of traditional processes in goldsmiths' work, and the contingent influences exerted on the quality and fashion of work during many generations, the author went on to ask,—Did the Phœnicians possess themselves of the process, and carry it to those who were described as the barbarians beside the ocean? For, in addition to the knowledge of enamel which these rude people possessed, they found objects dating from the Celtic period enriched with a sort of tesselation of minute portions of glass pastes. Again, in the mixed mass of treasure, Byzantine and Gothic, which he had mentioned as found at Petrossa, the same well-characterised and peculiar style of ornament reappeared, portions of garnet as well as vitreous paste being used to fill the minute golden partitions. Another link in the chain, and that a most important one, was furnished by the objects of extraordinary interest and importance which were found in the grave of Childeric I., second king of the Merovingian dynasty, who died in 481, and was buried at Tournay; and amoung the personal ornaments were several enriched with the exact kind of work they were considering; the golden bees, which were supposed to have adorned his royal mantle, were inlaid with portions of garnet or glass paste. From this time forward the links in the chain were sufficiently continuous to show that the tradition of the process was never lost. It was not difficult to cite examples, such as the objects found in 1842 in Champagne, and now preserved in the Museum at Troyes, among them being sword and dagger hilts richly decorated with the same inlaid work. When they came to the Anglo-Saxon period, they found this inlay a favourite ornament for their gorgeous brooches, &c., and in the Faucett collection, at Liverpool, were some splendid examples of brooches, found as they chiefly had been at Kent. Passing from the Saxon period, they found the tradition of this ornament lingering among the Scandinavian goldsmiths; they also found that it had never been wholly lost in Spain, and that to a very late period it was practised in the Tyrol, in Hungary, and in Albania, and, in a modified form, had scarcely yet died out. In conclusion, he said

that the effect of traditions on goldsmiths' work was, first, to perfect processes as long as the real life of a nation endured; afterwards, to induce imitations of the more difficult processes intended to save labour and satisfy or deceive the superficial eye; and, lastly, to check invention.

The President said that it was impossible to overrate the importance of studying goldsmiths' work, which was of great interest to them as architects, for they might sometimes have occasion to be employed in the kind of work to which the lecturer had referred. With reference to the collection in the British Museum, alluded to by Mr. Smith in his paper, Mr. Birch thought that it was classified in an extraordinary manner, and he trusted that before long it would be so placed that they could go from class to class, and study all the branches of this goldsmiths' work. Alluding to the law of "treasure trove," the President trusted that it would be placed on a better foundation.

Mr. Hugh H. Stannus said that they ought to thank Mr. Smith for introducing the subject of goldsmiths' work in so clear a manner as he had done. One of the reasons why the trade of the goldsmith was kept so secret, he thought, was that the work was such that it could be executed privately, and taken home to the workmen's houses. The first man, he was of opinion, who discovered that he could unite two pieces of metal together made goldsmiths' work practical.

Before the meeting separated,

Mr. Hayes called attention to an interesting sketch, made by Mr. Statham, giving a fine view of St. Paul's Cathedral from the Blackfriars Station of the Metropolitan District Railway, and which showed the building of Sir Christopher Wren's to great advantage.

STREET PAVING ARTISTICALLY GLANCED AT.

A good deal of talk there has been lately about the paving of the streets, and not, it is certain, without cause; and the wonder is that so important a subject has not long before this excited more attention. It would be hard indeed to find a subject more universally interesting and useful than that of the character and condition of the very roadway on which everybody, be he who he may, must needs travel; and not only travel and move about on, but must also perpetually *look* at,—a subject of twofold interest both useful and artistic. Nay, more than this; for these words hardly express what "Pavement" may be made to imply. In the old-world ways, and in poetic imagery, what is there not to be found of all that is imaginative in the antique pavements and floors? Golden pavements, floors of jasper, green emerald, for the footsteps have been pictured in the minds of poets all the world over, from east to west. We are contented to dream of what we cannot, or are unwilling to, realise; and the streets of the very largest and very wealthiest city of the world exhibit no sign of even jasper or marble in their pavements. Nothing but quite ordinary "Yorkshire" in all and any sizes, as most conveniently quarried and moved about. We are a plain and practical people, it is certain, and do not do much in the way of putting before the public and general eye,—which a great people ought always to do,—the precious things of art and of nature. Still a little might be done, even here; and we venture, therefore, to say a few words about it, and to point to a fact or two.

If the problem be a puzzling one as to which of great London streets be the most attractive generally,—and it certainly would tax the keenest of us to say which is so, taking, of course, the best of them,—it would be yet a greater puzzle to say what it could be in such street that could be pointed out which specially characterises it as artistic, or even picturesque, or "architecturesque." Which is, may we ask the curious in passing, the most picturesque of London streets? Which the most otherwise attractive? Which the most architecturesque?—to adopt that not a little expressive, and really convenient word. But leaving these hard-to-be-answered problems; what is there, say, in Regent-street, that can possibly fix the eye and attention of the artist; barring the open and ever bright shop-windows, and their fresh and attractive contents? It certainly is not the house-architecture line, for that is sufficiently poor, not to say mean, as well may be. It is not of imposing size. It is not extreme width, or, what is more, extreme narrowness of street-way. And most certainly it is not the street pavement that can attract the special notice of the passers by. Here and there it may be that some little attempt has been made to ornament the footway by the addition in a doorway of a thin strip of encaustic tile work; but this is mere accident, and does not help the general poverty of the ground which must be passed over. But first to a quite plain and practical matter, though still in the end an artistic one; for plain, and simple, and even poverty-struck, though the common pavement of the streets of great towns may be, still do such street roadways come into the picture of the streets, and cannot be otherwise than noted in such picture; and we are looking at it artistically.

The common street-paving no doubt does, and must to most people, perhaps even to most professionals, seem a matter of mere necessary utility, more or less well and satisfactorily executed, in more or less good and sound materials, and as having nothing whatever in it having to do with art. At first sight this does seem so, but in reality it is far different even as things are. No one can look down the length of a street, however indifferent, or however imposing, without at the same time that he sees the buildings right and left, taking in as well the eye impression of the street, or road, and foot-paving, whatever that, as a whole, may be, and whatever may be the colour of it. He sees the ground on which the buildings stand, and this ground is in reality fully as important in the eye picture, as the very sky itself, which forms the roof of the picture, and which no one certainly can, or possibly do otherwise, than notice and even dwell upon. We cannot help looking at the street pavement, even if we would, and with not a few people given to brown study, it is not unfrequently the only object they *do* look at. A history of street-paving among different nations, and at different times, would be a not-a-little useful addition to our architectural and artistic records. We do not mean a history of mere road-making, but of road-making "artistic" as well, and the time has been when this was an item in the architectural "specification" of works to be done.

We do not here speak of country roads, however formed, but of town street-ways and foot-pavements. No one can go down some out-of-the-way by-street of the old-fashioned type in London, without, may be, at least a passing notice of the roadway of it. It is composed of good-sized granite blocks, round and smooth on the surface, almost polished indeed, and irregularly set in the ground. It makes, in very quiet, narrow streets, almost an artistic appearance, both in form and colour, and is always noticeable in the old prints of London, as it was before the days of MacAdam. Of course, this is a noisy enough pavement, but it is a solid-looking and artistic one. It might as we think, be yet improved upon, and made here and there to do good service. It is this solid paving which is now gradually and surely making way for asphalte or wood. Huge heaps of it may be seen, looking like old-world walling, on the Thames Embankment, close to Blackfriars, and the heaps are daily accumulating, for its day is over.

The next step in road-making was, as all must know, the cutting up of these boulders into smaller irregular fragments, and the scattering these broadcast over the earthen road itself, after the plan of MacAdam. This in a few days got trodden into the earth, so as not to be distinguishable from it, or from an ordinary high road of earth and pebbles. This hardly comes within our present looking at the matter. There is certainly nothing of art in it. Next comes the asphalte and the wood paving of different kinds, and, artistically looked at, they may be classed together, for the object aimed at in both of them is simply smoothness and an even level of roadway. The dull colour of these must tell in the street picture. At night, as it is in the narrow, high-housed, City streets, in wet weather, nothing can be more dreary or much colder than an asphalte-covered roadway,—as like to rotten, dirty ice as is possible.

It is, nevertheless, street-paving of asphalte or wood that will in all probability supersede all others, for the street *noise* then is at a minimum. It is curious to note the difference between the *tread* on such pavement and the tread on the ordinary stone paving, and the *ease* with which way is made on the yielding wood paving. It would be curious to experiment on the additional distance which a vigorous traveller could pass over on good wooden paving as compared with the distance—to say nothing of fatigue—on the ordinary stone paving. But this by the way. It is the *foot* paving here that we more especially refer to as capable of artistic improvement, or rather of artistic treatment. As things are, nothing can be rougher, or less adapted to attract the eye, than the pavement the Londoner passes over so often. The irregularity in size of the slabs composing it, and the inartistic way in which the work is put together, make the sight endurable only from the fact of every one being used to it, and knowing of nothing else. The simple regularity of forms in the separate slabs, and a little ingenuity in the putting of them together, and in their arrangement, would of itself, little as it may seem, do a great deal. It needs only to be noted, this constant attractiveness, as in the flooring of St. Paul's, where the slabs of marble are regular in form and arrangement, to feel sure of this. Nay, how very little is required to interest the mind even here; for the mere passing over a pavement roughened by the feet of a past generation works an almost magic charm as soon as we are conscious of it. It may be said that the very echoes of past footsteps are to be *heard*, if but attentively listened for. We are not all gifted with so acute an ear, but all can see, and some at least of us may hear a distant echo.

We may well, and perhaps usefully, note here a very small remnant of the past, which until very lately existed. It was, we believe, the only instance in London of artistic or architectural paving in a public way. We allude to a few square feet of fragments of stone and marble pavement in Covent Garden, in Inigo Jones's piazza, on the east side of it, and opposite to the hotel there. It was not much perhaps in itself, but a good deal where there is nothing. It was a clever thought this Covent Garden-square, with its covered walk all round it, and its church and gateways. Sometimes we are inclined to think it unique. It was never completed by its illustrious architect, and has been in very many ways sadly marred and put out out of joint. The proportions of it, and its details, though few, are admirable, and there is a quaintness about the little there is of it left which makes one regret most sincerely that it was never completed. Its noble owner and great landlord, his Grace of Bedford, might well for London's sake complete this square, after the plans of its architect, and when doing so *restore* the pavement. Fashions change, and Fashion has run away from Covent Garden-square as a place to abide in, that is certain; but yet not altogether run away, for the great theatre near holds its own, and all that is noble and wealthy and fashionable go to it; and through this very square, for three months in the year, nay, in this very covered way, Fashion itself, in satin slippers, in plenty, have we seen pass over this very bit of quaint and old marble paving,—the only pavement of marble in mighty, all-wealthy London! Did any of those who so trod it notice it, on their way to their easy carriages?

Looking thus generally at the common pavement of the streets, it is certain that nowadays cheapness rules well-nigh absolutely in it; all sizes of stone slabs are used, and those of the very thinnest possible. It is a little lamentable to think of, for things might be otherwise. Understand, says a great modern teacher, that no good man did, or ever should, encourage "cheapness" at the ruinous expense of unfitness, or, we might surely add, positive ugliness. It is a pity indeed that such opportunity for good work, good in all senses, for fitness and beauty, and even as a vehicle for instruction to those who read as well as run, should be neglected. But so it is. We can but imagine a better condition of things. A quaint street pavement. How little would do it, and what an immense field for it there is. How very far towards delighting the eye would a little bit of clear and bright coloured marble go, here and there, after the example as above of Inigo Jones. Nay, the very granite discarded from the roadways and cut into squares, and polished, might be made to do good service, and help the eye to a cure of its dull vacancy! We might go into detail, and hint at more than one thing here, but will leave it to the thoughtful consideration of those who may perchance take to it. If it be true, as the leading journal has it, that one of the great problems of the future must needs be the "rebuilding of our hideous Metropolis," then most certainly its repaving in some way or other different from the present must be included in it, and that, whether artistic or not. As it is, might not a good beginning be made by the "artistic paving" of some leading and fashionable London street?

OLD WESTMINSTER.

TOTHILL FIELDS, CIRCA 1745.

OLD WESTMINSTER.

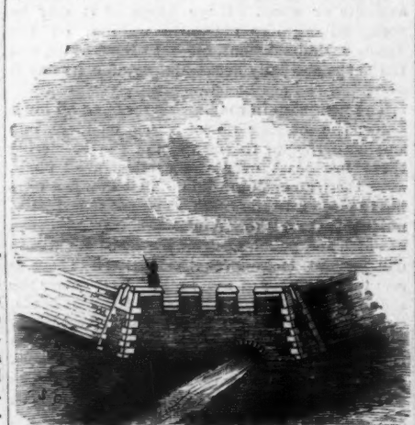
II.—TOTHILL FIELDS.

IN an old map of Westminster, bearing date 1776, the town of Westminster seems limited within its south-western boundary to that ancient causeway, the Horseferry-road. Beyond this, toward Pimlico and Chelsea, spread the open fields, with but here and there scattered buildings. Ponds and marshy ground appear at the western end of Rochester-row, and patches of garden-ground distinguish the cultivated from the generally waste character of the soil. On the site of the present gas-works was Eldrick's Nursery, which supplied the district with fruit and flowering shrubs, as the Abbey Vineyard had supplied the monks in the olden time with many a vintage, and the site of which may be traced in the present Vine-street.

The open Tothill Fields, as they were called, existed in this state till 1810, with a group of lonely cottages standing in their midst, when the note of preparation for an altered site might be heard in the construction of the iron bridge at Vauxhall. Doctor Vincent had already inclosed a portion of the fields for the square which bears his name, and the Westminster Gas and Coke Company removed their offices, and commenced their new buildings in the Horseferry-road, on the site of the before-mentioned nursery. So partially disturbed, however, was the locality generally that the tower of St. Luke's Church, Chelsea (1820), was clearly distinguishable whilst building from the back windows of the houses in Marsham-street.

In 1830 the Vauxhall-road was not entirely built upon, and bits of the hedgerow were still to be seen. Patches of greensward might as yet be observed beneath the litter of old iron, which Andrew Mann so liberally spread over any plot of waste ground; whilst the site of the present South Belgravia remained open market-garden ground, intersected by bridle-paths, for some ten years subsequently. The present Warwick-street, uniting Westminster with Chelsea, occupies the precise site of the "Willow Walk."

In 1832, the Seven Houses, or Five Chimneys, as they were called, retained much of their primitive appearance. With the moss and lichens growing on the roofs and walls, and their generally old-fashioned quaintness, a very small



Site of Battery in 1643.

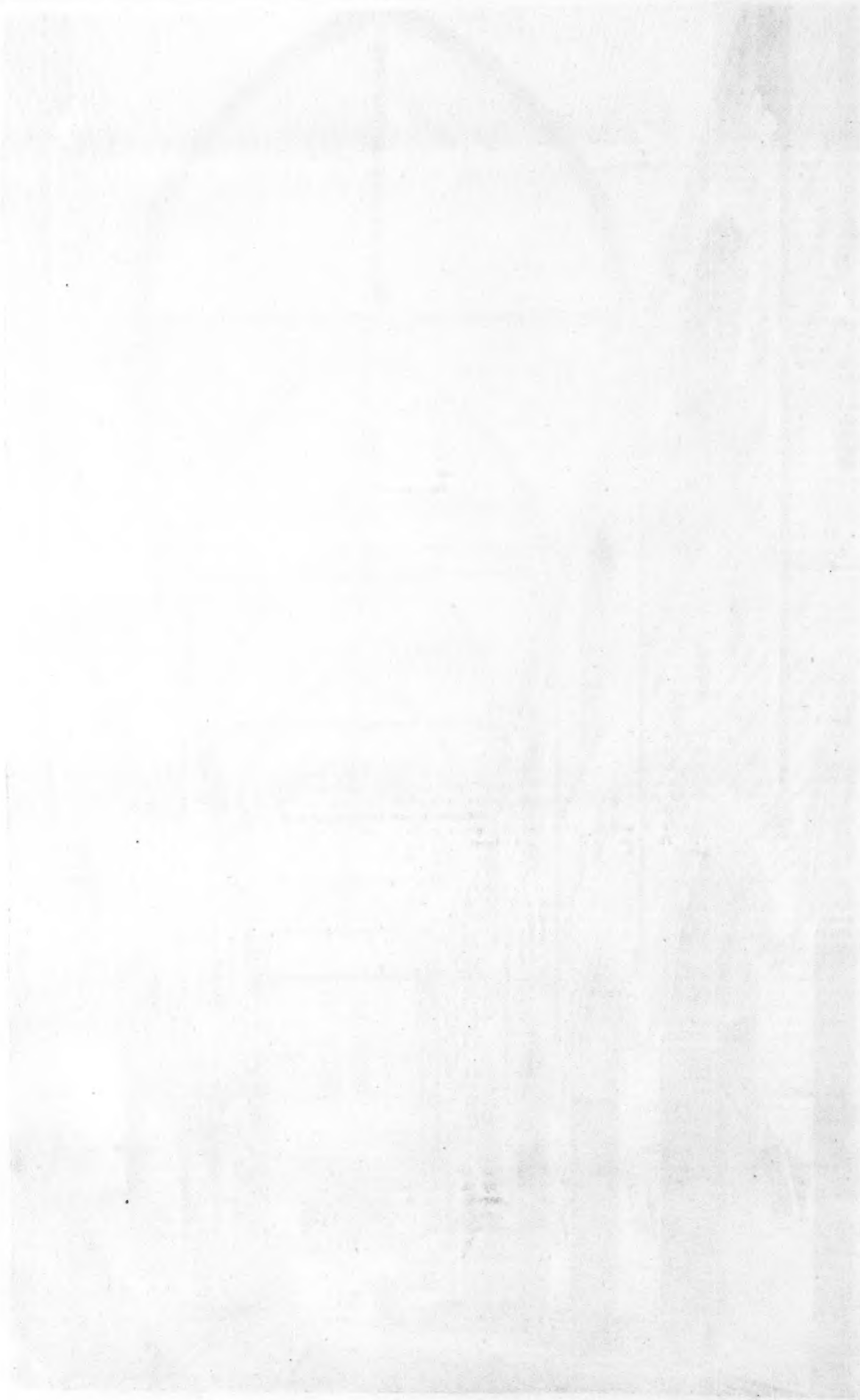
stretch of the imagination removed the buildings which had surrounded them even then, and brought them once more into the open ground. They marked the site of a battery and breastwork when the fortifications round the cities of London and Westminster were hurriedly thrown up in 1642. This battery is marked as about midway between the Chelsea-road, and the bank of the river opposite Vauxhall. In 1665, these houses, as being somewhat removed from the town, were used as a sort of hospital or lazaretto for the plague-stricken patients in that eventful year, and they are shown as such in a slight etching of them by Hollar. Many a torch, or lanthorn-lighted group of mysterious-looking figures have borne the litter of the stricken to this then solitary spot, not so much with hope of recovery, as from fear of spreading the dire infection by retaining them within the frighted and unhealthy town. In connexion with the fields surrounding them, there are many incidents recorded illustrative of the days of old. Prior to the Statutes of Restraint, they were considered to be within the limits of the sanctuary of the Abbey. Also, on account of the general dryness of the soil, and the size of the fields, wagers of battle were often decided here. It is related that in 1441 such a one occurred in a combat between "two Theves." The "pælour" (appellant) is described to have "hadde the felde and victory within three strokes." In the reign of Henry III., St. Edward's Fair, originally held in St. Margaret's Churchyard, was removed here, and in 1302, the Abbot of Westminster was allowed to levy tolls upon all traders who sold their wares at the time, even within the precincts of the Palace. In 1628 were preserved in the muniment-room of St. Margaret's King Henry III.'s Patent to the Abbot of Westminster, giving him leave to keep a market in Tothill every Monday, and a fair every year for three days. This fair was held in Rochester-row, in the space between the Almshouses of Emery-hill and where the Church of St. Stephen the Martyr now stands. The fair was in existence in 1819, but died away gradually previously to the general suppression of fairs in 1840. The fields were resorted to by the King's scholars and neighbours generally for sport and recreation, and in 1672 the parish made a new maze here. William Wells had a bear-garden here on the site of the present Vincent-square in the time of Queen Anne.

In 1651, upon Cromwell's return to London after the Battle of Worcester, 4,000 of the Scots prisoners were driven like a herd of swine through Westminster to Tothill-fields, and sold to several

ST. BARTHOLOMEW'S CHURCH, BRIGHTON: INTERIOR VIEW LOOKING TOWARDS CHANCEL.

MR. EDMUND E. SCOTT, ARCHITECT.

[See pp. 94, 95, *ante*.



merchants, and sent to Barbadoes. As an old writer observes, "a sadder spectacle was never seen except the miserable place of their defeat." A fatal duel was fought here in 1711, between Sir Cholmeley Dering and Mr. Richard Thornhill, in which the former was killed.

The solitary character of this tract of land, spreading out to the Chelsea-road, beyond which lay the "Five Fields" extending to Knightsbridge, is illustrated by an incident not uncommon to the neighbourhood at a period when the highwayman would lie in ambush for the belated pedestrian, or for the chaise, which in this instance is conveying not the most loyal subjects of George II. from one of those political meetings when the mug-house riots were at their height.

Such was the disturbed condition of society at this period, that two witnesses were sufficient for the immediate arrest of any party suspected of harbouring either Romish priest, or other of proven Jacobite politics, and great abuses were consequent upon this hasty legislation. The panic created by the rumoured march of the Highlanders, with the numerous party of the disaffected in London, kept the alarmed citizens wakeful in their beds; for the Highlanders were feared as a terrible race, and possibly no anticipated result had been surrounded with greater doubt and uncertainty, but that the energy of the king, backed as it was by the commercial interests of the Londoners, threw the balance in favour of the new dynasty. In the summer of 1745, two adherents of the House of Stuart,—one a young officer in the Pretender's army,—had hired a chaise to convey them from Westminster to the then remote village of Chelsea. To avoid the rioting in the town, they had taken a route across the less disturbed fields. They had not proceeded very far, however, before two well-mounted men made their appearance, and so suddenly that had they risen out of the earth it could not have surprised them more. Both men wore masks, and whilst one of them stopped the postboy, the other rode up to the window of the chaise, and scrutinised the occupants within. The postboy spoke in too low a tone to be heard by the travellers, but whatever might have been the nature of the conversation it was sufficiently talismanic to relieve the party of their apprehensions. Making a sign to his companion, both men turned their horses' heads in the direction of the town, and the postboy proceeded on his journey. Upon reaching their destination they asked the "boy" who his rather suspicious-looking friends were, to which he returned no answer, but upon being pressed again on the subject said, "It's not much matter who they are, but they belong to those who don't care to meddle with Prince Charley's boys"! The mystery seemed now greater than before, and further inquiry might only have involved further difficulty. It was evident the postboy knew too much, but in what manner he had become acquainted with their political bias it was impossible for them to conceive. Treating the matter, however, as a joke, and paying the boy handsomely, the matter ended, but their anxiety only terminated by their quitting London for the North. The widow of one of these gentlemen died in 1824, at the advanced age of ninety-five years. After the amnesty, her husband, who fought at the Battle of Culloden, had, in common with others, some curious restraint laid upon him, one of which was that he could not ride a horse of a higher value than 10*l.*, without forfeiture of it to any one who chose to avail himself of the prohibition.

Down to as recent a period as 1819-1820 that most barbarous sport of bull-baiting occasionally took place here; and the three days' fair (St. Edward's) was not finally discontinued till some time afterwards. In 1832 these houses (the Five Chimneys) yet excited some curiosity, and a measured drawing was made of them at that time.

Passing up the narrow court, the primitive little group warranted, perhaps, the idea of a still earlier date for their building. The reddish grey tone of the old brickwork where the limewhiting had disappeared, and the mosses on the roofs, seemed quite out of character with the growing neighbourhood surrounding them. The old palings here and there yet indicated where the pigs and the chickens had been kept, and had not long left their habitation. Over one of the doors was nailed the horse-shoe so salutary a preventive against the entrance of the witch, and even a belief in its efficacy was at the time elicited from the old woman with whom the young measurer of the buildings had his early morning conversation.

AN INSTITUTE OF ARCHITECTS IN UTOPIA.

THE capital of Utopia is peculiarly happy in its guild of architects, and the guild is equally happy in its admirable constitution. Although the members of the profession are divided into an infinity of schools and even cliques, the central power is so organised as to embrace all of them under the folds of a banner upon which is inscribed the universally acknowledged trinity of beauty, utility, and common sense. The canons of art which were originally called either Gothic or Classic have now no other designation than that of Catholic, because they have been proved as infallibly true as the problems of geometry; and since the word "taste" has been banished from the artistic vocabulary, the study of architecture has been recognised as of importance almost equal to that of the evolution of species and language. So invincible was the ignorance, so profound were the errors concerning the building art in which the Utopian public were sunk, that learned editors found it profitable to insert in publications of high reputation ridiculous comments upon the state and hope of architecture; and the leading journal of the time flattered the ignoramus, eager to condemn yet powerless to point out the abuses of artistic practice, with well-turned periods about the pure and simple working man. It used to be argued that the *lucus a non lucendo* principle, which it was thought absurd to apply to other trades or professions, was really suitable to the building art, and that the best architecture was that in which no architect was permitted to meddle.

Although the Institute has had barely fifty years of existence, it numbers nearly 2,000 souls, yet in the Utopian year of 1842, there were only 98 Fellows and 78 Associates, while thirty-two years afterwards there were only 295 Fellows, and 281 Associates. Its earlier annals were not, however, less eventful than those of a few years ago, when its reform was triumphantly effected; nor were the first score of sessions more clouded with internal dissensions than they are at the present hour, when president, council, and secretaries work together for the general good, regardless of "camp" or shade of opinion; and mindful only of the duty they owe themselves and the whole body of members, by a portion of whom they are elected. In those days, as in the present ones, literature was worthily represented, and men who devoted themselves to the criticism of art were welcomed in the councils of the Institute, doing good service there with their erudition, experience, and advice. But in that evil hour, when the public journals were forbidden to publish the papers read to scanty meetings, it was decided that the Transactions of the Guild should only be printed three weeks after they had occurred, in order to render them exclusively beneficial to the members; and so perfect was the result that, with the obvious exception of the few who had heard it read, any ultimate acquaintance with a paper was confined to its author and the secretary who corrected the proofs. At the same time the majority of the public, not having any means of knowing that the Institute published its Transactions, and the minority believing very naturally that it ought to be able to buy for pence what the Institute did not sell for shillings, a large amount of waste paper remained on shelves which are now profitably filled with books and illustrations. In those days, as in the present ones, foreign correspondence and other cosmopolitan business were zealously conducted; but as clique succeeded in ousting clique, a good and laborious servant who had helped to found the Institute was replaced by another whose labours in the post hardly deserved the name. Since then, however, a great many things have happened; nor was reform effected without a little general injustice and much individual sacrifice. That it was effected has been the best and only unanswerable answer to the complaints of those critics who periodically wrote against architects and wrote down themselves.

It is perhaps not well known that in the original formation of the Institute right royal pens had declared its purpose to be for "the general advancement of civil architecture, and for promoting and facilitating the acquirement of the various arts and sciences connected therewith;" but it is certainly well known that from the day of its foundation until the Utopian year 1875 it had only fulfilled the first half of its contract. It had also been decreed that no resolution should on any pretence whatsoever "be made by the said body politic and corporate in opposition to the general scope, true intent, and meaning" of the Charter accorded to it,—which, it is also well known, was treated with polite indifference by a long succession of councillors, with whom the art of framing excuses was cultivated with such assiduity as to lead to the belief that had other and different arts been equally well studied by them, a great benefit would have accrued to the whole community. The stumbling-block to progress—for reform was never thought requisite by those in authority—was the existence of a body of men, about 600 in number, who had formed themselves into a co-operative association for the laudable purpose of mutual instruction. They had been driven to do this from the egotism of their masters; and so great was their success in the path they chose that one of the greatest living exponents of architecture, a Frenchman, had approved their action in his admirable lectures. The best papers upon the building art were deservedly delivered to them, for the only serious attempts at the technical education of professional juniors were made within their ranks. If a little vanity was mixed up in their proceedings, it was only natural among a society whose chiefs were very young men—especially as those chiefs were enabled to style themselves presidents and past-presidents of an Association, when, as members of the Institute, they could not have obtained a higher rank than that of Associate. Nevertheless, there was really good sense amongst the general body, for when an enthusiastic parson once addressed them as "learned men," many of them laughed heartily, and upon their uplifted faces rose some honourable blushes. The original fault of the Institute had consisted in treating these men as rivals and opponents, or in patronising them; in fact, the grave fault which it had always evinced towards the world generally, was its suicidal attempt to be exclusive and aristocratic. It possessed as fine a technical library as any in Utopia; but the books were not read except by a dozen of the members, and no inducement to amateurs and non-members was offered to visit it. The lecture or meeting room used to be laid up in "lavender" 365 days and 350 nights in the course of a year. The first step in reform was made when those in authority found out that the members did not pay their two or four guineas per annum for the use of the library, and to hear the lectures; and when this discovery was made, they threw open the library to every member of every architectural society in the whole realm of Utopia, without inquiring whether the visitor was a member of the Royal Guild or not. They also handed over their lecture-room to the junior association of the capital for use every Friday evening. The president of that society for the time being was invited to sit in the council of the Institute, together with the presidents of three provincial societies selected by ballot of the council. The president of the junior association was made an Associate of the Institute without ballot, entrance-fee, or annual subscription; and it was only when he should apply to be admitted as a Fellow that the usual subscription was to be required of him. Any member of the Association was admitted an Associate of the Institute by ballot, and on signing the usual declaration, without an entrance-fee; and the members of any provincial architectural society were accorded a similar favour. The burdens of all Associates were lightened without increasing those of the Fellows; and an intimate connexion gradually sprang up between the country architects and their metropolitan brethren. The impetus thus given to co-operative action alarmed the Foreign Secretary, who would have resigned, as he said, to give place to a better man; but he did better by rising to a sense of his manifold duties, and exerting himself, as his predecessor had done. Another honorary secretaryship was founded, and it was filled by a man of middle-age, of polished address and varied attainments, whom a private income permitted to disregard the allurements of large professional practice. The paid secretary remained to transact general business, and edit the Minutes and Transactions; but the life of the Institute, as a body corporate, depended upon the Home Secretary, whose task was no light one during the first two years of his work; and happily he was equal to the labour involved in the acceptance of his onerous post. The leading principle which guided him from the very com-

mencement of office was an absolute conviction that in the Royal Guild only lay the germs of general professional reform; and that, properly encouraged, the affiliation of provincial societies was not only feasible, but it was really desired by the majority of those bodies. Animated with this notion he visited the leading provincial architects; and, having learnt their views upon the subject, drew up a careful report of them, and added to it many excellent suggestions of his own. He found it generally acknowledged that the chief complaints against the Institute were based, not upon errors of commission, but omission; he found that the majority of conscientious practitioners throughout the kingdom approved of, and even demanded, the establishment of some central examining power to which they could submit themselves for the purpose of testing their qualifications to practise the trade, business, or profession of an architect. One of the real obstacles to reform consisted in the ignorance of each other's wishes which characterised the leading societies of the kingdom. The biennial conferences which had been held had not led to any practical results, because men cannot talk or act in a body, and no officer had been appointed to carry out their wishes or to represent them. Indeed, it seems to have been expected that, when the architects in general committee assembled had once or twice declared how certain reforms were necessary, the public would immediately step forward and carry them out. Instead of which the public began to look about for the means of dispensing with architects altogether; and in this mood it was naturally attracted to the engineers, whose pursuits reflected the utilitarian spirit of the time.

The new Home Secretary found out also that the provincial architects desired some more friendly recognition of their visit to the capital than it had been the custom to afford them. When a man had come two or three hundred miles to be present at a discussion, or make one in a vote of thanks to a lecturer, he expected something more than the traditional cup of tea or coffee in return for his trouble. He had then no means of conversing with his metropolitan colleagues except by button-holing a stranger; and he usually left the town with an impression that the Institute was of little use to him,—always barring the fact that membership implied the acceptance of certain obligations, which, however, honest men who were not members always fulfilled. And this defect was acknowledged by many town as well as country architects. It was felt that half an hour or longer might be agreeably spent at the close of a day in consultation with professional brethren, and that the five o'clock tea of the fair sex might be made a profitable institution in the Conduit-street of the Utopian capital. There professors might meet with old pupils; fellow-students established in practice at opposite corners of the kingdom might be brought together again; and especially in those days of overwriting, the acrimony of many a paper war would be there dissipated by a few words of ordinary conversation. At the same time the daily and weekly papers, the last new books upon art subjects, and the art serials of the Continent, would there form a centre of discussion; and the library might be made to unfold its hitherto unappreciated treasures. Nor did the Home Secretary leave unargued the vexed question of the admission of building-surveyors and master-builders. It was felt that a society which was instituted for architects alone could not admit other than *bond-fide* practitioners to its highest grade of Fellow; but the leading builders and art-tradesmen were invited to join as Members,—subject, of course, to election by ballot. The absurd title of "Contributing Visitor" was abolished; and the class of Members, which now numbers more than 500, has enriched the Institute "Transactions" with valuable information of a practical character, and of which too many professional men had remained too long ignorant. It was suggested that the eldest sons—not architects themselves, and not carrying on any trade connected with building—of deceased Fellows who had distinguished themselves in the profession should be made honorary Fellows. How these reforms were accomplished is inscribed in the records of the Institute; and none—except those who had profitably imposed upon the public claims to practise an art the very rudiments of which they ignored—have regretted that that central authority which was once a power in the republic of Art was successfully asserted in modern Utopia by the chartered guild established in the capital.

MUSEUM OF SCIENCE AND ART, EDINBURGH.

THE important addition recently completed, and forming the second instalment of building operations in connexion with the Edinburgh Museum of Science and Art, was, on the 14th inst., formally opened to the public.

The museum was commenced in 1861, after a design by the late Captain Fowke. The east wing and a small portion of the central hall were finished and opened to the public in 1866; the work was then suspended till 1871, when the section now inaugurated was taken in hand. There now remains only the construction of a west wing, similar to that at the east end, to complete the building as originally projected. Estimates for the work have been obtained, the ground is nearly cleared, and building operations will be commenced in the ensuing season.

The section of the Museum in which we are now interested carries the façade westward to the point at which the new wing will come in. It embraces the main entrance, which takes the form of three round-headed doorways, approached by two flights of broad steps. Passing within, the visitor finds himself in a hall, measuring 270 ft. in length by 70 ft. in width, and 72 ft. in height to the ridge of the roof, with two galleries carried round the sides on ranges of light columns. This hall is lighted chiefly from the roof, and painted in light green and French grey, picked out with red. On the south side, communicating with it through wide openings, are two smaller halls, also lighted from the roof, and round which both galleries are continued. The space between the smaller halls is appropriated, on the ground-floor, as a refreshment-room, with kitchen underneath, and in the upper stories as apartments to be used at present for administrative purposes, but eventually to be allocated to special departments of the Museum. On the basement level, again, there is a range of workshops for the skilled craftsmen employed in connexion with the establishment, while a vast extent of stone-vaulted cellars affords accommodation for heating apparatus, storage, and other purposes.

FROM MANCHESTER.

WHEN I have visited Manchester I have always found things to admire: I now add,—mired I have oftener been than I could wish. A more deplorably dirty state of the streets of a noble city cannot be conceived. Slush in a main road ankle-deep, as a rule, this weather; pavements black, greasy, and slippery, and heaps or pools to drown the unwary; and, to make all these more certain destruction, fogs to which those of London in density and taste could not hold a candle. London fogs as a rule are good, honest vapour, with a clever admixture of smoke and soot. Here we have those skilfully compounded with everything bad, supposed to issue from the furnaces of the infernal regions. When there is light enough to see the buildings by, coupled with the advantage of clean streets and pavements, which may sometimes happen after a deluge, sharp and powerful enough to act as a scavenger, Manchester awakens much enthusiasm; things have been done with a will—no flinching; a giant seems to have been moving about and impressing his seal upon everything. The styles are diverse enough, but, as a rule, one thing has ever been kept in view—*light*, and no wonder.

In 'buses, everybody knows, Manchester excels London,—that is, as to size: one drawback, or fall-forward, there is,—you must mount and alight whilst the 'bus is in full motion. This is to save the horses and time—very much the time, I think, for the way three horses are made to do the work of six is surprising. Well, to return to the mounting: having plunged through a river of black mud—in Longsight-road say,—dodged the deepest part, and caught your 'bus, you seize the steps, give a lurch forward, knock your shins against the step, and with wet feet and muddy trowsers you mount to the top; and here you are repaid for everything, for, instead of the soddened straw-stuffed *cushions!* of the London 'bus, you have a clean wire seat, free from wet, although a shower descended but a minute before. But the *descension* (?) takes the comfort even of the thought of a dry seat away; if you do not drop off the step boldly, you cling like grim death to the step-ladder and are dragged for fifty yards through everything, and perhaps crack your shins this time. If you drop off boldly you are as likely to find yourself on your back as on your stomach: one or other you must do the first go off, if you happen to be of mature age and good condition. As one 'bus follows another in rapid succession, it does not do to lie too long, however much amusement you may afford to the practised and skilful. And all this you can have for twopence outside and threepence in. Then you can get into a Hansom cab here without the chance of being decapitated during the journey, as is usual in London. The fourwheelers, too, are as a club to a gin-shop in comparison; they are well lined, commodious, run easily, and have drivers who will take half-a-crown for ninepence without a thankee; but human nature is human nature here as in London. My landlady, too, reminds me that my scribbling will not pay her gas-bill, so for my description of Manchester I must await the sun.

U.

A NATIONAL HISTORY GALLERY.

MURAL decoration has, for a century and a half, received little or no encouragement in England. Bare walls are the rule in our churches and great public buildings. The object now is to find opportunities fit for the development and display of historical painting on a large scale; for this is precisely the class of painting which, more than any other, requires encouragement beyond the means of private patronage. The want of such encouragement has long been regretted, not by professors only, but by all who have turned their attention to the state of painting in England,—a proof that the promotion of historic art is an object of interest, with a considerable portion of the public.

Mural painting being employed to decorate large and solid surfaces, the artist is no longer intent upon the reproduction, however ingenious, of reality in its most limited sense. A dignified subject is essential, and to this genius is required to add ideality, or elevation of treatment. Lastly, *simplicity*, the *indispensable* characteristic of great works, must be apparent in the composition and in the execution. Hence arises the especial condition of excluding from mural painting all that may interfere with grandeur of effect, all that aims at literal imitation and illusion. It follows, therefore, that the treatment of subjects fitted for large dimensions must tend to ennoble the style and taste of the artist of the National School of Painting, and even to influence and to improve the fine-art manufactures.

Therefore, in default of our churches and public buildings being fields for the exercise of the arts of painting and sculpture, I beg to propose that a National History Gallery shall be erected by means of a Government grant, public subscription, or private enterprise, whose walls shall afford ample space for the display of historical painting. In this building I would have a succession of galleries, each of which should be devoted to a particular period of British history. The ante-chambers to each gallery might contain a collection of the antiquities of this period. Between the paintings there should be statues of the remarkable men of the time. The whole should be linked together with architectural skill. Great splendour in the exterior of the building would not be required, the decoration of the interior is the matter of first consideration and importance. The paintings and sculptures in these galleries would form a series of illustrations of English history. Such a gallery would be a great national monument, wherein the public could lounge, be instructed, and, perchance, inspired.

I would not insist upon any particular method of painting being adopted, the choice of this or that process might be left to the artist. But this and many other minor points may well be left for future consideration.

W. CAVE THOMAS,
Hon. Life Governor, University College.

The New Mechanics' Institute, Whitby. The directors, after more than a year's investigation, have chosen the Albert-chambers, with a frontage to Baxter-gate and another to the railway station, as the site of the new Institute, subject to the plans being approved by Mr. Palmer, M.P., who started the movement by a subscription of 500*l*. The building, it is expected, will be converted into an Institute, comprising library, reading, class, and recreation rooms, with a large lecture-hall above, at a cost of between 3,000*l*. and 4,000*l*.

THE DUKE OF EDINBURGH'S STABLES.

THE Duke of Edinburgh has just had a commodious stable-yard and carriage-houses erected in Belgravia, nearly opposite the Grosvenor Hotel. The coach-houses will accommodate about thirty carriages, and there are stalls and boxes for above that number of horses. These stables have all been fitted by Musgrave & Company (Limited), of Belfast, with their patent fittings similar to those supplied by the same firm for the stables of the Prince of Wales at Sandringham, and for those of Sir Richard Wallace just completed, and to which we shall refer on another occasion. The stables are erected round a covered courtyard, nearly two sides of which are occupied by the coach-houses, while the stables are to the right and left of the gateway. Over both stables and coach-houses are lofts and rooms to serve for fodder, &c., harness-rooms, and apartments for those employed in attending to the horses, &c. The divisions between the stalls are of wood, finished at the top with wrought-iron vertical rails surmounted with a neat, but strong, iron ramp. This ramp and the lower part of the frame carrying the rails are supported by a strong cast-iron pillar. The upper end of the stalls is lined with blue tiles. The light is admitted from behind. Ventilation is secured by a patent valvular window over the head of each horse. The rack is of iron. The manger is of iron, and enamelled, so that it is easily kept clean, while a couple of rollers stretched across permit the horse easily to eat his feed, but hinder his knocking it about.

ROCHESTER CASTLE GARDENS.

THE Corporation of the City of Rochester have awarded the first premium to Mr. E. Evans Cronk, London; the second premium to Mr. John Young, of London; and the third premium to Mr. Friend, of Maidstone, for laying out the Castle Gardens Estate at Rochester. Eighteen sets of drawings were sent in for competition.

RENDLE'S SYSTEM OF GLAZING.

RENDLE'S patent system of glazing has been used for some time past in horticultural works with complete success. We are disposed to think its use may be, and will be, much extended. In this system the glass is placed in horizontal metal grooves, and fixed on wooden rafters without putty. The woodwork is completely covered by the metal and the glass, so that it is not exposed to the action of the atmosphere. The glass moves freely in the metal grooves, and can be easily removed, so that if a pane of glass is broken it can easily be replaced without the aid of the glazier. Moreover, the system is said to be very economical. The winter garden and aquarium about to be formed in Westminster are to be covered in this way; and so will be many other buildings before long.

COST OF ROAD REPAIRS.

St. George's, Hanover-square.—The report of the surveyor, at the vestry meeting on the 21st instant, recommended that Eccleston-street, Ebury-street, Elizabeth-street, part of Grosvenor-road, and Chesham-street, the east and west ends of Eaton-square, and Chapel-street, should be coated with granite. It stated that the steam roller had been for over four years in almost constant work on the roads of the parish with much satisfaction to the vestry and advantage to the public. Details were given of the various items of estimated expenditure, the totals being 39,319*l.* 16*s.* 6*d.*, divided into the following heads:—Maintenance of roads, 11,350*l.*; maintenance of footways and carriageways, 3,553*l.* 1*s.*; casual repairs, 2,250*l.* 0*s.* 8*d.*; lighting, 9,637*l.* 18*s.* 6*d.*; watering, 3,994*l.* 16*s.* 4*d.*; cleansing, 8,534*l.* In addition to this, the sewers were estimated to need an expenditure of 2,577*l.* 10*s.* for the year. The report was adopted.

St. Pancras.—At a meeting of the committee of the St. Pancras Highways, Sewers, and Works Committee, recently, Mr. W. B. Scott, chief surveyor, reported as to the cost of paving the roadway of Charles-street and Phœnix-street, extending from Seymour-street to Brill-row, Somers-town. The total area is about 4,200 yards; the cost of keeping the macadam in repair, and that never good, is about 400*l.* per annum. The cost of paving with granite cubes would be 3,465*l.*; less credit for old stone, 465*l.*, making the net cost 3,000*l.* If this amount be borrowed at 4 per cent., to be paid off in twenty years, the average annual instalments of principal and interest would be 228*l.* per annum. The chairman remarked that it was sound economy to have such streets paved. The report was agreed to.

SUBWAYS.

SIR,—Allow me to point out to your readers, and your hypercritical correspondent, "William Cochrane," in particular, that the unpopularity of subways is not fairly attributable to the alleged thriftiness of "obtuse vestrymen," inasmuch as the Legislature has not vested in the representatives of the ratepayers the power of compelling public companies to use subways when constructed. Commercial interests are all-potent in Parliament, and I need only quote Sir George Grey's speech, made on the 26th of February, 1866, in reply to an attack on Local Government to prove the soundness of my argument: he said, "Whatever the local authority may be, if Parliament give power to a company to break up pavements and lay pipes, whatever the local authority is, it must submit to the exercise of powers granted by Parliament."

A PAROCHIAL OFFICER.

WORKMEN AND THEIR TOOLS.

SIR,—Your chapter upon "The Use and Abuse of Tools" is one so much "overlooked," and, moreover, so important, that I am constrained to trouble you with another word coming out of the same subject. After many years' experience, not only have I learned to conclude the general character of the workman by a peep at his "kit," but have learned also to take far higher ground in relation to the same. It is quite possible for a bad workman to have about him what is known as a "swell" lot of tools; but it will be found, upon examination, that the *condition* of those tools will, in most cases, reveal the "tradesman," or otherwise; for it often turns out that their "swell" condition is in externals only, and not in their careful keeping, as fitting them for skilful use.

Far more important, however, is the revelation of hidden character as seen in the *product of the workman* itself, for if out of square and devoid of "truth" in its manipulation, it shall be found to be a reflex more or less of its producer. So much has habit led me to adopt this observation as the index of "the man," that I have rarely found it uncertain.

R. H. TAYLOR.

GAS EXPLOSIONS.

SIR,—I am truly grieved to continually read of accidents caused by taking a naked light into a room full of gas. Do the gas-men really ignore the miners' lamps intentionally? They can be bought cheaply, and are easily applied.

W. N.

PAINTED INSCRIPTIONS.

SIR,—Can any of your correspondents tell me what paint will stand on the carved letters of tombstones? I have one stone which was painted in London, which is quite unaffected by weather. Two others painted in the country have lost all trace of paint.

INQUIRER.

"FUR" FROM WATER.

SIR,—Will you permit us to reply to your correspondent "A. C.," and to inform him that "fur" is injurious to health, being formed by the lime present in water, or sulphates, or carbonates, and that the silicated carbon filters have the power of removing lime to the greatest extent possible by filtration. They are constructed as "A. C." states, and were in use during the Vienna Exhibition in the iron houses inhabited by the party of British workmen.

THE MANAGER.

ARCHITECTS' CHARGES.

AT the Durham County Court, before Mr. E. J. Meynell, judge, Mr. Robert Rule, of Bishop Auckland, architect, sued a miner named Bell, who had amassed some money, which he proposed to invest in building, for 3*l.* 3*s.*, for professional services.

Mr. Rule stated that he met the defendant at the Boyne Hotel, Langley Moss, who asked witness for plans for a house and shop he intended to build, and he went with the defendant to inspect the site of the property. Upon that occasion the defendant gave instructions as to what kind of building he wished to have erected, and it being a slight job, witness agreed to prepare the necessary plans and specifications for 4*l.* 4*s.* He took measurements of the site and proposed building in his pocket-book. At that time it was also agreed that witness should draw a pencil-sketch of the plans and submit it for the approval of Mr. John Bell, the defendant, who appointed a meeting for the purpose at the Feathers Hotel, Durham, on the next Saturday. Witness made a sketch of the plan and went to Durham; but the defendant failed to keep his appointment. He had not gone to the trouble of making a specification, and he now claimed 3*l.* 3*s.* for the trouble he had taken in the measurement, and making the pencil sketch.

Mr. W. FOX, of Durham, architect, gave it as his opinion that three guineas was a very low charge indeed for the services rendered.

The defendant said he thought it a very high charge, and pretty quickly earned for a pencil sketch. Besides, he never gave any instructions to prepare any plans, as they could not agree about the price of the plan, and he told the architect he thought 4*l.* too much for a plan.

The Judge.—What do you say about the arrangement to meet this gentleman at Durham?

Defendant.—He was to meet me in Durham and sketch a plan, but that was his own wish.

The Judge.—What about the pencil sketch he was to make?

Defendant.—I said I would see it if I was in Durham.

The Judge.—Did you expect an architect was to travel from Bishop Auckland to Durham on the chance of meeting a client for a pencil sketch? I do not. I shall give judgment for two guineas, and allow the plaintiff full costs.

JAMES BUTTERWORTH *v.* JAMES READ WEST.

THIS was an action in the Ipswich County Court, January 20, to recover 2*l.* for preparing plans and specification of a villa residence on the Willoughby-road, and superintending its erection. Plaintiff gave credit for 3*l.* 12*s.* 8*d.* for gasfittings, &c., supplied to him by defendant. Defendant pleaded a set-off of 7*l.* 2*s.* 8½*d.*

Mr. Pollard appeared for the plaintiff, and Mr. Hill for the defendant.

The plaintiff said four houses were erected in Willoughby-road about the same time, of which plaintiff prepared the plans, &c., and superintended the erection by Mr. Trew, the contractor. Of these houses one was for the plaintiff himself, and the adjoining house (the houses being in pairs) was for the defendant, the contract price of each house was 408*l.*, and plaintiff's commission on the defendant's was 20*l.* (five per cent.). Plaintiff, at defendant's request, gave a statement in writing that his charge would be 20*l.* When the house was nearly finished there were one or two little things which Mr. Trew had not done, and consequently plaintiff would not certify, but ultimately defendant told plaintiff he had seen Mr. Trew and was satisfied. In cross-examination Mr. Butterworth said the same plans used for the defendant's house were used for four houses built for Lord Gwydyr on Willoughby-road, and Lord Gwydyr had paid him 80*l.* As to defendant's set-off, he disputed certain gasfittings which defendant put up in his (plaintiff's) house without an order, and which were taken down and put into defendant's house.

For the defence Mr. Hill contended that the plaintiff should not be paid for preparing the plans, as they served for Lord Gwydyr's houses, and had been paid for by him. He called Mr. Trew, who proved that there were certain deviations from the plans and specifications. It appeared that Mr. Trew lost by his contract.

The Judge said it was proved that there was an agreement that defendant should pay 20*l.* Although there might have been some departure from the plans, Mr. Butterworth's statement that Mr. West said he was satisfied was uncontradicted, and he should allow Mr. Butterworth 20*l.* He deducted the items of the set-off which were admitted, and gave judgment for plaintiff for 14*l.* 5*s.* 4*d.*

RECOVERY OF CHARGE BY A BUILDER FOR PLANS.

CHARLES U. BARRATT *v.* GEORGE TURNER.

AT the County Court, Stone, Staffordshire, on the 18th inst., before Mr. W. Spooner, judge, the plaintiff, a builder at Eccleshall (for whom Mr. Smith, barrister, appeared), sued the defendant, a baker, of the same place, to recover 3*l.* 17*s.* for work done in the capacity of architect.

Mr. Smith said, that at the request of the defendant the plaintiff drew plans for a new shop-front and bay-window to his premises at Eccleshall, and also made a specification and estimate, putting the cost of the proposed work at 180*l.* The defendant thought that too much, and Mr. Barratt prepared a fresh plan and estimate, in accordance with which the cost would have been 144*l.* The defendant, however, entered into a private arrangement with the plaintiff's foreman, a person named Houghton, who submitted an estimate on his own account amounting to 133*l.*, and carried out the work from Mr. Barratt's plans, with very slight modification. As soon as the plaintiff ascertained what was going on between his foreman and the defendant, he discharged the former from his service. When a builder acted as architect, and was not allowed to carry out the work, it was customary for him to be paid for his plans and estimates. In this case the charge made was after the rate of 2½ per cent.

The plaintiff having been examined, Mr. Smith called Mr. Robert Hamilton, managing clerk to Mr. Griffiths, architect, of Stafford, who stated that when a person was employed to draw out a plan and an estimate—such as had been provided in this case—he would be entitled to charge five per cent. upon them jointly, in addition to, say a guinea, for sketching the plan in the first instance.

The Judge said that as the plaintiff was only a builder, the defendant should not be charged at the rate usual where the superior skill of a professional architect was engaged.

Mr. Smith.—He has only charged half of that.

The defendant said that when he first spoke to the plaintiff about the probable cost of refronting his house, Mr. Barratt said that he was a "very bad one to guess at a thing," but would draw out a plan. He (defendant) did not order the plan, but one was made and brought to him, without specification or estimate, with a statement that the cost would be 178*l.* odd. He demurred to that amount. The matter stood over for some time, and Barratt's foreman told him the work could be done for less, and afterwards prepared a plan, with an estimate for the amount already stated.

Mr. Houghton was called to confirm this statement. He said he took the dimensions for the plan himself, and that the plan of the elevation as carried out differed materially from the one prepared by the plaintiff.

The Judge having examined the plans produced, said he was of opinion that Mr. Barratt's plan had been substantially adopted and carried out. There must be a verdict for the plaintiff for 3*l.* 17*s.*, to be paid forthwith. Costs were also allowed.

CLAIM FOR DILAPIDATIONS.

NEAVE *v.* CLEMMANS.

THIS was an action, in the Court of Exchequer, on the 20th inst., to recover about 90*l*., the amount of certain repairs effected in respect to four houses in Homerton. The question involved was one of some importance as regards liability to repair on the determination of a lease.

The plaintiff was a pawnbroker, the ground-landlord of the house in question, receiving 24*l*. a year. He had advanced on mortgage 1,000*l*. on the property, at a stipulated interest of 7 per cent. The defendant was a house and estate agent, and had taken the houses in question on lease in 1870, paying for the same at the time 200*l*. One of the covenants in his lease required him to paint the wood and iron work outside of the premises every four years, and the inside every seven years. It appeared that the defendant had done the latter last year, being only the third year of his possession. The plaintiff, however, brought an action of ejectment against him for breach of covenant in not keeping the houses in repair. The defendant did not defend this action, and the plaintiff became proprietor of the entire rents, amounting to 150*l*. a year for the remainder of the lease, upwards of eighty years. The plaintiff, in addition, claimed the amount he had expended in repairs, for the recovery of which he brought the present action.

The judge (Baron Bramwell), in summing up, told the jury that the only question they had to consider was the amount of damages the plaintiff was entitled to according to the covenant for repairs at the time he brought the action of ejectment, such repairs to be only those which the defendant was by his lease required to execute. They must, however, bear in mind that the defendant was not bound to make the premises better than he found them, nor to pay for any improvement or addition which did not exist when he entered into possession of the property. He was not, for example, bound to substitute an oak beam for a deal one. The plaintiff would have acted more regularly if, before he had entered into those repairs, he had furnished the defendant with a schedule of those which he demanded. It was quite certain that the defendant was amenable to the putting up of stack-piping, varnishing of doors, &c., which formed items of his claim.

The jury found a verdict for the plaintiff,—damages, 40*l*.

CHURCH BUILDING NEWS.

Horsham St. Faith.—This parish church has recently been restored. The total cost (exclusive of the chancel repairs), has been 3,180*l*. 10s. 3d., of which the sum of 2,798*l*. 5s. 3d. has been raised, leaving a deficiency of 382*l*. 5s., towards which subscriptions are being collected.

Ingham (Norfolk).—Holy Trinity Church is about to be restored, at an estimated cost of 2,500*l*. Subscriptions have been promised to the amount of 800*l*. The Ecclesiastical Commissioners will repair the chancel at a cost of about 800*l*.

Newton-le-Willows.—The alterations in conformity with the late faculty have been commenced in St. Peter's Church. The architect is Mr. H. B. Bare, of Rock Ferry, and the contractors Messrs. Holme & Nicholls, of Liverpool. The new organ, presented by Colonel McCorquodale, has been built under the directions of Mr. T. W. Best, by Messrs. Brindley & Foster, of Sheffield.

Cheltenham.—It has been determined to proceed at once with the restoration of the parish church in accordance with the plans of Mr. Christian. The work will be carried out piecemeal, the commencement being made with the northern aisle, which will be boarded off from the body of the church until its restoration is complete, when the southern aisle will be undertaken. With reference to the erection of the new church, Mr. Agg-Gardner having renewed his offer of the Dorset Mews property as a site for the proposed new building, the committee decided to accept it. The site, which adjoins St. Mary's churchyard on its western side, and lies between it and the houses fronting St. George's-place, has been considered by Mr. Christian and Mr. Middleton as admirably suited for the purpose.

Brockhall.—The parish church of Brockhall, near Weedon, has been restored by the liberality of the Rev. T. C. Thornton, the patron of the living and lord of the manor. Though possessing few features of architectural value, the little church is not without interest, since vestiges of the ancient structure still remain. The edifice, dedicated to SS. Peter and Paul, consists of a nave, south aisle and porch, chancel, and an embattled tower containing three bells. The most ancient of its architectural characteristics are Norman. The arcade, which divides the nave from the only aisle, contains the remnant of the primitive Norman structure. The two easternmost arches are semicircular and spring from the outer edges of the square shallow capitals of the two supporting pillars, which are low and circular, with circular bases. The third arch is pointed, resting at the west extremity on a demi-octangular column inserted in the wall. The inner door of the south porch has a plain Norman arch without columns. Two of the windows give indications of Early English building in the church. The north side, or nave, is assigned to the fourteenth century by Baker, though the late Rev. Henry Rose in his architectural notice of the Church, expressed the opinion that it had been rebuilt about the middle of the fifteenth century. Mr. Rose attributed the south porch and the upper story of the belfry to the same date. The chancel is separated from the nave by a lofty pointed arch; and the tower arch is similar in character. Near the east end of the south aisle is a monumental arch with crockets and finials, and ball flowers are thickly set in the hollow mouldings. The arch is rudely executed, and encloses an inner trefoil arch of Decorated character. On a slab beneath it was a brass—a floriated cross—and inscription commemorative of Peter de Thurleston, rector of the parish in 1281. The whole of the stonework of the southern arcade has been cleaned of the whitewash and paint, and restored to its original character; and the internal stone-work and arches round the windows have undergone similar treatment. A new oak screen has been placed in the archway of the mortuary chapel. This part of the building was restored some years ago by Mr. E. F. Law. The old roof had been plastered and whitewashed between the tie-beams; and when this work was being cleaned it was discovered that the whole of the roofs were in a dilapidated condition. The architects then received instructions to put on new roofs. These roofs have been executed in the best pitch pine, and after the model of the original, and covered with lead as before. Not the least of the improvements effected is that of the opening of the tower arch. The arch was closed up by massive oak panelling of a modern character. The removal of this obstruction lays open the tower chamber, and displays a small lancet window. The total cost has been something like 1,100*l*. The restoration, carried out from the designs and under the superintendence of Messrs. E. F. Law & Sons, has been executed by Mr. Beardsmore, builder, of Northampton.

St. Lawrence (Thanet).—A new church is about to be erected at St. Lawrence, Thanet. The plans have been prepared by Mr. W. E. Smith, of Upper Bedford-place, London, and the building will be erected by Messrs. Smith & Sons, of Ramsgate.

Southampton.—The new place of worship just erected for the use of St. John's Free Church, in Clifford-street, has been opened for divine worship. The edifice is constructed principally of iron, and is 82 ft. long, by 36 ft. wide, inside measurement. It is built to accommodate some 500 persons. Wood, varnished and stained, is freely used in the interior. There are two windows on each side, and one at the east and another at the west of the church, making six in all; and the building is lighted artificially by five sunlights. In the chancel is accommodation for the choir, and in the nave is placed the organ, —the one used in the services at the Philharmonic Hall. There are two entrances to the building, one to the vestry, and an ordinary one at the side, and in the roof are six ventilators. The exterior of the church is of corrugated iron, having a foundation of brick; and there is a steeple and bell. The whole is surrounded by a brick boundary-wall, with iron palings.

Worlingham.—The church of All Saints, Worlingham, a village to the east of Beccles, has been re-opened for divine service after having been partially closed for eighteen months, during which time it has been thoroughly restored, entirely at the expense of the Rev. Sir Charles Clarke, bart., at a cost of about 1,600*l*. The nave of the church has been re-seated with oak benches, the windows restored to their original patterns and filled with green glass with amber border, and the old roof removed and an open one of pitch pine substituted. At the entrance to the chancel a new arch has been made. The chancel has been raised one step, re-seated with oak benches for the choir and clergy, and paved with ornamental tiles. The floor has been raised two steps within the altar-rails, and also paved with ornamental tiles. A reredos has been erected over the altar-table, formed of encaustic tiles and mosaic. The chancel aisle has been re-seated and paved. It contains the new organ built by Messrs. Walker, of London, at a cost of about 600*l*. Mr. A. Blomfield was the architect, and Mr. J. Botwright, of Bungay, the builder.

Manningtree.—The church of St. Michael, Manningtree, better known as Manningtree Church, has been re-opened, after restoration and repair. The original edifice was erected in 1616, and has been twice enlarged. The present restoration has comprised the removal of the wooden windows in the north wall, and the substitution of stone ones; the rebuilding of the south wall; the high pews have been reconstructed, the pulpit and reading-desk remodelled, and the church has been painted, grained, and cleaned. Mr. William Rivett was the architect. Tenders were asked for from tradesmen of the town; but their estimates so far exceeded the expectations of the committee that it was decided to put each department of the work into the hands of separate tradesmen. Accordingly, the masonry was given to Mr. James Frewer, Ipswich; the joinery to Mr. G. T. Clover, Manningtree; and the painting, graining, and glazing to Mr. S. S. Parsons. In the north wall is a monument, erected in 1748, to the memory of Thomas Osmond, who suffered martyrdom in 1555, for adhesion to the Christian faith.

Great Hallingbury.—This church has been restored, almost rebuilt, and enlarged, at an expense exceeding 6,000*l*., defrayed by Mr. John Archer Houblon, with the exception of a sum of about 600*l*. devoted to the rebuilding of the chancel. The church consisted of a nave (45 ft. by 25 ft.), chancel, western tower, and south porch. During the alterations some early work was brought to view, which is described by Mr. G. E. Pritchett, the architect, in a paper in the transactions of the Essex Archæological Society. A new north aisle has been added to the nave and continued along the chancel, the entire length being 73 ft. by 19 ft. wide. The architecture of the latter portion of the thirteenth century has been followed in the construction of this aisle. The worst portions of the walls have been rebuilt with the old materials, and great care has been taken to reproduce, where practicable, the old stone windows and doorways both in the church and tower. The stone used has been Ancaster stone from the best quarries, and also the pink stone from the same quarries. The roofs are of oak, boarded with the same material, and felted, battened and tiled with old tiles. The seating and stall work and other fittings in the chancel, and the chancel and tower screens are all of oak. The pulpit and font are of the finest grained Ancaster stone. The reredos is of English alabaster. The paving in the chancel is of encaustic tiles, with a marble border to the altar-piece; the other portions of the church are paved with hard Newcastle tiles. The glazing throughout is of cathedral glass in diamond quarries. The spire is covered with oak shingles, characteristic of the churches of Essex. Provision is made for heating the building with warm water. The builders are Messrs. Rattee & Kett, of Cambridge, and Mr. O. Polley is clerk of the works.

Alton.—The new district church of All Saints, Alton, the foundation stone of which was laid by the then Lord Chancellor, Lord Selborne, on the 18th of June, 1873, was consecrated by the bishop of the diocese on the 23rd ult. The church stands in a meadow at the south-western end of the town, adjoining the Chawton-road, near the district of Newtown. It is in the Early English style, and consists of a nave, transepts, and apsidal chancel, with sedilia, and the design includes also a tower and spire, which at present have not been undertaken for want of funds. The outer walls are of Selborne stone, flints being worked in and around the base, and the windows, &c., are faced with Bath stone dressings. The seats inside are of open deal work, stained; all are free, and will accommodate 400 persons. The roof is open-timbered, covered in in the nave with V-jointed diagonal boarding, the covering in the chancel being longitudinal, with moulded ribs and carved bosses. The organ-chamber is on the north side of the chancel. The chancel is lighted by four coloured glass windows, by Messrs. Hardman & Co., of London. The area of the church is floored with encaustic tiles, and a hot-water apparatus is provided for heating. The estimated cost of the erection, exclusive of the tower, is over 3,000*l*. The architect was Mr. F. C. Dyer, of London; and the builders, Messrs. J. H. & E. Dyer, of Alton.

Exeter.—On removing the pews and flooring of the church of St. Olave, it was found that all the area was occupied with walled graves (each covered with its grave-stone), recording the names of ancient inhabitants of note. The lofty tower arch, hitherto concealed, has been

laid open, and within it, on the eastern wall of the tower, is exposed a piece of relievo sculpture, set in a sunk panel, representing the scourging of Our Lord, who appears seated on a bench with his hands tied, while being scourged by two soldiers; on another bench is a figure seated, probably an officer, watching the flagellation. The figures are much mutilated. Adjoining the statuary is a hagioscope, an aperture in the wall of the tower, arranged so as to command a sight of the high altar, in order that a worshipper should be able to see the elevation of the host. One or two steps only now remain of a flight of stairs, under an arched headway, leading from this spot, over the entrance-door of the church to a chamber or chambers, in the situation occupied by the western gallery. The seating removed was erected in 1815; the pulpit and sounding-board are adorned with marquetry work, and against the east wall is a painting of the Royal Arms (1699), surmounted with the See of Exeter impaled with Trelawny. The church of St. Olave is mentioned in the Exchequer Doomsday as dependent on Bath Abbey, in Sussex, hence its Norman antiquity,—if not earlier,—as its dedication to St. Olave, a northern saint, may imply.

Kingston.—The Duchess of Teck laid the corner-stone of the north aisle and organ-chamber of St. John's Church, Kingston-vale, on the 28th ult. The addition is intended to complete the building as originally designed by Mr. Ewan Christian, architect, London.

DISSENTING CHURCH-BUILDING NEWS.

Long Eaton.—A new chapel has been opened in the district of Long Eaton. The memorial stone of Zion Chapel was laid at the end of April last, and the building, which is in the centre of the town, is intended for the better accommodation of the members of the Methodist New Connexion. The cost of the ground and building was originally estimated at 1,500*l.*, but as alterations have been deemed advisable, the total cost will not be less than 2,000*l.* At the present time the funds obtained amount to something like 900*l.* The architect is Mr. J. Collyer, of Nottingham; the builder and contractor is Mr. Youngman, of Long Eaton; Mr. Taylor, of Long Eaton, being entrusted with the joiners' work. The building is in the modern Italian style of architecture. The dimensions are 57 ft. by 35 ft., and provision is made for extension in case of necessity. The fittings are of red deal, stained and varnished; and the heating apparatus is on Haydon's hot-air principle.

Devonport.—The congregation of the Wesleyan Chapel at Stoke, Devonport, have made arrangements with the lord of the manor for a piece of ground near the residence of Dr. Rolston, for the erection of a new chapel. The plans are prepared, and it is expected that the work will commence in a short time. The outlay will amount to about 2,000*l.*

Lancaster.—Nicholas-street Chapel, one of the oldest Dissenting places of worship in the town, and which has been closed since the end of January, has been reopened, after extensive alterations and additions from designs by Messrs. Paley & Austin, the architects. It has been found necessary to take out the whole of the interior of the primitive chapel, which has been entirely renewed and re-constructed; the roof has been retimbered and slated, and the old windows replaced with new ones. Additional space has been gained by building a new chancel of a semicircular shape, at the west end of the old building, and a rearrangement of the interior, so that the restored building may be said to consist of a nave and chancel, the original structure constituting the nave. The floor of the nave has been seated with open benches of pitch-pine varnished, with panelled ends. The total cost of the alterations was originally estimated at about 1,000*l.*, but this has been exceeded by nearly 500*l.*, which has been occasioned by various additions which were not foreseen when the alterations were originally planned. Mr. James Heap was clerk of the works, and the following were the contractors:—Mason work, Messrs. Lancaster & Trafford; joinery, Mr. Roger S. Wright; tablets and chancel-windows, Messrs. Shrigley & Hunt; painting, Mr. Standen; plumbing and glazing, Mr. W. Abbott; slating and plastering, Mr. Hartley; and heating apparatus, Mr. Greenall, all of Lancaster.

Birmingham. — Bethany Chapel, Anderton-street, which has just been completed, has been opened for religious service. The chapel will accommodate about 200 persons, at a cost of about 600*l.* The architect was Mr. G. Ingall, and the builder Mr. Sapcote.

Handsworth (Sheffield).—The foundation-stone of a Wesleyan chapel has been laid here. The chapel will seat 350 people, including 120 in the gallery, under which are two vestries. Under the chapel is a school-room for 200 children. The walls are built and faced with local stone, in uneven courses. The style of the building is Romanesque; the interior work is pitch-pine; the roof is open-timbered. As the site is very narrow, light cannot be introduced from the sides of the building. The cost will be about 1,500*l.* The builder is Mr. Joseph Buxton, of Handsworth; and Mr. J. King James, of Hull, is the architect.

Oxford.—The foundation-stone of a new Primitive Methodist chapel and school, in Pembroke-street, St. Clement's, has been laid by Mr. C. Early, of Witney.

Wellingborough. — The new mission-hall in St. John-street, of which the corner-stone was laid in September, has been opened for divine worship. The building cost a little over 600*l.*, of which about 250*l.* had been raised. The edifice is a commodious one, of brick, with stone dressings, 52 ft. by 30 ft., and is built to hold 400 people. The tender for the building was 473*l.* 3s. 3d., exclusive of costs of foundation, diversion of road, and fittings. The ground was given by Mr. R. and Mrs. Sears. The corner-stone of the building bears the inscription, "Him that cometh unto me I will in no wise cast out."

Wolverhampton.—In 1865 a wooden chapel was erected by the Wesleyans of this town, which having become insufficient for the accommodation required, a new chapel and schools have been built from the plans of Messrs. Loxton Bros., Wednesbury, the work of erecting being intrusted to Mr. David Evans, of Wolverhampton. The foundation-stone was laid on the 8th of November, 1873, by Mr. Isaac Jenks, and the edifice was opened for public worship on Wednesday morning, 23rd ult. The total cost has been about 6,000*l.* The building is in the form of a parallelogram, 53 ft. wide by 100 ft. long. The exterior is of a plain design. The lighting of the building has been arranged by Mr. Heaton, of this town.

York.—At the quarterly meeting of the New-street Circuit, on the 29th ult., the erection of a new Wesleyan chapel in the neighbourhood of Cemetery-road, at a cost of about 5,000*l.*, was agreed to. The building will adjoin the present Wesleyan chapel in that thoroughfare, but will front Melbourne-terrace, the existing chapel, with an additional wing, being continued for Sunday-school purposes.

SCHOOL BUILDING NEWS.

Amwell.—In February, 1874, the small old school at Amwell was burnt, and, as matters have turned out, it was a fortunate accident, for the vicar, the Rev. R. Parrott, set to work energetically, and soon raised a goodly sum, so that by the following July the builder, Mr. Hampton, of Hoddesdon, had begun the new school, and early in that month the foundation-stone was laid. The new school, a lofty large room with class-room, lobbies, &c., is of red brick, and close to it is the master's cottage, of similar material. Mr. T. T. Smith, of London, was the architect. The work has recently been completed, and the school opened.

Birmingham.—In their report on the 15th inst., the Sites and Buildings Committee recommended the acceptance of the tender by Messrs. Barnsley & Sons for the erection of a room for teaching cookery at Farm-street School for the sum of 595*l.*; also the tender by Messrs J. Hardwick & Son for the erection of schools in Norton-street, All Saints', for the sum of 9,430*l.* They advised the payment of the sum of 1,156*l.* 19s. for the purchase of the leasehold interest in the Rea-street property, of 1,554*l.* in payment of the purchase money of the site in Dartmouth-street, and also 252*l.* 11s. 10d. for the purchase of additional land at Bloomsbury. The report and the recommendations contained in it were adopted without discussion.

Leiston.—The old school, which was only capable of accommodating from 100 to 150, and was totally unprovided with class-rooms, or a separate room for infants, has been restored and connected with the new buildings, which have just been completed. They consist of the schoolmaster's house at one end, and the infant schoolmistress's at the other, one large double T-shaped room, the largest compartment of which measures 62 ft. by 19 ft., and the smaller 52 ft. by 18 ft.; two class-rooms, one opening into the large room and one into the smaller, and the infant school-room. It is estimated that the double room will contain nearly 250 children. This is intended for the mixed school, or the elder boys and girls. The infant school-room, previously the old school, is capable of seating 150, thus it will be seen that there is now accommodation for nearly 400 scholars. The architect is Mr. F. Peek, of London. Mr. J. W. Lacey, of Norwich, was the builder, whose contract for the work amounted to 1,649*l.* 11s.

Hastings.—The new schoolhouse for the Holy Trinity parish has been formally opened. The new school building is on the north side of the railway, somewhat in a hollow, midway between the station and the Bohemia tunnel. The site is part of the Cornwallis Estate. The schools are of a Gothic character. Messrs. Jeffery & Skiller were the architects. Besides the two schoolrooms, both of which are lofty and light, there are class-rooms, lobbies, sanitary, and other conveniences. Separate entrances are provided for two schools. Amongst the internal fittings are convenient galleries for the infants, and the seats are so arranged as to form backs to rest against when not in use as writing-desks. Good yards for play-grounds are connected with each school. The external walls are of sandstone and moulded bricks, the internal lining being of pale yellow brick with stone dressings. Residences for the teachers are at the east end of the schools. The builders were Messrs. Hughes. The cost has been about 1,900*l.*

Crowthorne, near Wokingham.—On Monday, the 18th inst., the new parochial schools, recently erected in Crowthorne, were opened by Mr. John Walter, M.P., to whose enlightened liberality their existence is due. The school is substantially built. The work was executed by Mr. Walter's own men, under the superintendence of Mr. Deacon. Adjoining the school is the master's house, which, however, is not yet finished.

Nottingham.—The new Roman Catholic schools, London-road, connected with St. Patrick's Mission, Leen-side, were opened on the 18th inst. The schools are situated in the densely-populated district of Narrow Marsh and neighbourhood. They consist mainly of three large rooms, one over another. The bottom room, which is intended as the infants' school, is 56 ft. by 22 ft.; and the boys' school, situated on the top floor, is 60 ft. long by 22 ft. wide. The rooms are tolerably lofty, but not too much so. The schools are built on the 10-ft. system, and arrangements have been made for ventilation.

STAINED GLASS.

Islington.—The east window of St. John's Church has been filled with stained glass by Messrs. Gibbs & Moore. It is a three-light window, with tracery; in the centre light is the Crucifixion, and on either side St. John and the Virgin Mary.

Walworth.—A new series of memorial windows, four in number, have lately been presented to St. John's Church by different donors. The four Evangelists are represented nearly life-size, and the figure of St. Paul is represented in another window. These have been designed and executed by Messrs. Gibbs & Moore.

Wimborne.—A stained-glass window has been placed in the minster to the memory of the late Lieut. Clogstoun, by the officers of the 9th Regiment, to which he belonged. The designers and painters were Messrs. Bailey & Co., of London. In the two centre panels are figures of David and Jonathan, and underneath each is placed a wreath of laurels, with a ribbon twined around, on which are written the names of the battles in which the regiment had been engaged. In the trefoil above are placed a sitting figure of Britannia, and the arms of the regiment. A brass plate is placed below the window with the following inscription: — "Thornton Warner Clogstoun, Lieut. 9th Regt., obt. May 15th, 1874. æt. 31. Erected in affectionate remembrance by his brother officers, A.D. 1874."

Ipswich.—A window has recently been inserted in the north aisle of St. Margaret's Church by Mrs. England, relict of Dr. England. The window is at the west end of the aisle, and is of three lights, with tracery in the Decorated style of

architecture. The three lights are divided into upper and lower compartments for the purposes of the artistic treatment of the subject, which is a representation of the Six Acts of Mercy. In the tracery above are representations of angelic figures. Beneath the window is a brass plate, with the following inscription:—"To the Glory of God and in loving remembrance of William England, M.D., who lived in this parish nearly 15 years, and died on the 1st June, 1871, aged 72 years, this window is erected by his Widow. October, 1874." The window is by Messrs. Ward & Hughes, of London; and the stone and other work was executed by Mr. Ireland and Mr. Grayson respectively.

Cowden (*Kent*).—A new window has been placed in the large east window of Cowden Church: the subject is the Raising of Lazarus—our Saviour, in the centre compartment, and the other figures are of large dimensions. The window is inserted to the memory of his father, by Mr. Gainsford, of the firm of "Goode & Gainsford." The Gainsford family of old possessed Crowhurst Place; another of them possessed the Moat, in Cowden. The late Mr. Gainsford, to whose memory this window is placed, filled all parish offices, and possessed a large farm contiguous to the Moat and the greater part of the houses in the village. He and his brother George gave large charities yearly to the "deserving poor." There are five painted windows in the chancel of this church.

Bibury.—The large west window of Bibury parish church has been filled with stained glass to the memory of the late vicar,—the Rev. H. Snow. The window has been erected by Messrs. Wailes, of Newcastle-on-Tyne.

Brigg.—A two-light window has been erected in the north side of the church, near the organ. The subject is the Apostle John taking the mother of our Lord to his own home, and the same Apostle in the Isle of Patmos. The window bears the inscription:—"To the glory of God, and in memory of Robert Haldane Paterson, and Susanna his wife. This window is erected by their seven children."

Great Thurlow.—A new three-light window has just been placed in the chancel end of the Suffolk church. It is filled with stained glass, the principal subjects being full-length figures representing "Faith," "Hope," and "Charity." It has been executed by Mr. Constable, of Cambridge, at the expense of the nephews and nieces of a lately deceased sister of the vicar, the Rev. William Wayman.

Darlington.—Two stained-glass windows have been erected in Coniscliffe Church, Darlington—one given by Mr. W. W. Benson, containing the subject of "The Good Samaritan"; the other, presented by Mr. W. H. Watson, and contains the subject of "Our Lord raising Jairus's Daughter." The windows are of the best description of glass painting. There are now eleven windows in this church, all of which have been designed and executed by Mr. Baguley, of Pilgrim-street, Newcastle.

New Wandsworth.—St. Paul's Church has received a three-light subject window. The centre light is occupied with a representation of the sudden conversion of Saul when on his warlike mission to Damascus. The two contiguous lights containing the arrested warrior's followers filled with awe and amazement. It is the work of Messrs. Cox & Sons.

Abingdon (*Berks*).—A new stained-glass window has been put in Tubney Church by Messrs. Gibbs & Moore. It consists of two lights, and tracery. The subjects illustrated are, St. Lawrence distributing alms to the poor: and, in the other light, St. Lawrence before the Roman Prefect.

Hawkhurst.—The district church of All Saints, which was erected and endowed some fourteen years ago by the munificence of the Rev. Canon Geffreys (then and now incumbent of Hawkhurst), and his sister, Miss Geffreys, has very recently had four new stained glass windows at the east end put in the place of the four original plain ones, in memory of the above lady, who died in 1873. The principal window is in three lights, the centre one of which contains the figure of Our Saviour rising from the tomb, with the historical surroundings, prominence being given to the females. All the subjects represented are illustrative of points of interest in the life of Our Lord, in which women were concerned, such as Mary Magdalen washing His feet, His blessing little children, &c. The above comprise all the windows in the chancel. The work was executed by Messrs. Clayton & Bell.

Louth.—The east window of St. Michael's Church has lately been filled in with stained glass, by public subscription, to the memory of the late vicar. The window consists of three lancet lights, and prominence is given to angels, on account of the church being dedicated to St. Michael and All Angels. The centre light is taken up with the subject of the Crucifixion, on the north side of which we have two events prior, and on the south side two events subsequent, to our Lord's life,—the Angels appearing to the Shepherds, the Annunciation of the Virgin, the Angel at the empty Tomb, and the Angels appearing at the time of the Ascension. In the upper part of the window nine angels are depicted, corresponding with the mystical "nine orders." The window is elaborately finished, and the tone of the colouring somewhat light in effect. The architect was Mr. James Fowler, of Louth; and the artists were Messrs. Ward & Hughes, of London.

Gressenhall.—A stained glass window has lately been put in at the west end of the parish church, in memory of the late Rev. Dennis Hill, for sixty-six years rector of the parish. The window, the subject of which is the Crucifixion of our Lord, is by Messrs. Ward & Hughes, and is a copy of the east window in Brisley Church.

Binfield.—Three windows, painted by Messrs. Lavers, Barraud, & Westlake, of Endell-street, Bloomsbury, have recently been placed in the North Transept of St. Mark's Church, Binfield.

Books Received.

Studies in Design for House Decorators, Designers, and Manufacturers. By CHRISTOPHER DRESSER, Ph. D. Nos. 1 and 2. London: Cassell, Petter, & Galpin.

THIS work, which is in demy folio size and is to be completed in twenty monthly parts, consists of designs by Dr. Dresser, produced in combined colours and in gold and colours. Each part contains three plates and a certain amount of letterpress. Dr. Dresser's skill in harmonising colours is well known, and the plates already published give further evidence of it. His chief danger is, lest in striving for novelty, he should become *bizarre*. He says in his introductory chapter,—"As newness of idea must be sought after as well as refinement of expression, I have to beg the indulgent criticism of those who seek fresh ideas in this work; for the efforts at realising what is new must ever be attended with the danger of being extravagant, and the risk of being eccentric. I have striven to attain newness, and my sketches go forth to the world. I beg lenient consideration."

It is safer to set forth the good than to strive for the new. We cordially wish our author success in his endeavours both ways,

VARIORUM.

THE *Printing Times and Lithographer* has entered a fresh phase, and No. 1 of the new series includes two papers of special interest, each of which is to be continued, viz.:—"Orthographical Difficulties Elucidated," evidently the work of a competent writer; and the commencement of a much-needed "Grammar of Lithography."——The *Engineer* says as to glass:—"Two circumstances are worth noticing with respect to it. Within the last ten years the home manufacture has been quadrupled, while during the same period the cost of production has diminished fully one half. It is but lately that English manufacturers carried out a series of experiments, with a view to improve the manufacture of glass and cheapen its price. The experiments were completely successful, and we can now produce glass at home equal to the best imported. Glass would perhaps be more used in actual construction, if any pains were taken to improve its qualities, other than those which affect merely its transparency and ornamental properties. It is not generally known that good glass will stand a compressive strain, but little inferior to that proper to ordinary wrought iron, the proportion being as seven to eight. Experiments have been tried on glass bars and rods in a similar manner as with iron, with the above result. Unfortunately, the tensile strength of glass as estimated at present is very small, not exceeding in the best examples more than a ton and a half per inch of sectional area. It is not impossible that the strength of this material both as regards its compression and tension might be increased by a better annealing process and by other means, if there were once created a demand for glass possessing these properties to a greater extent. Its advantages are that it can be readily both cast and rolled into any form; the ingredients of its manufacture are cheap and abundant; it is completely unaffected by acids with the exception of one, with which it can scarcely accidentally come into contact, and is not attacked by the weather and the thousand and one causes of deterioration which are so fatal to iron. In addition, it is about one-third of the weight of the latter material. We think that glass would play a more important part as a constructive material if attention were drawn to the qualities it possesses—qualities no doubt capable of considerable improvement."

Miscellanea.

The Working Men of Crewe.—The Bishop of Manchester, at the Liverpool Council of Education on the 16th inst., said,—"I see among the working classes generous and noble aspirations and desires to do their duty to themselves, their wives, and children; and this is, I think, deserving of all possible admiration and encouragement. I do not know when I spent a more pleasant two hours than I did last night in distributing, at Crewe, the prizes at the Mechanics' Institute, a great institution having a thousand members, the *élite*, as it were, of the working men who are employed in the great works of the London and North-Western Railway Company. This morning I had the pleasure of going with the superintendent (Mr. Webb) through the gigantic and magnificent shops of the works, and I must say that whether I saw the men in their working clothes and their begrimed hands and smutty faces, or whether I saw them last night dressed in good broadcloth, and looking—I was going to say every inch as gentlemen, but something better than the mere conventional gentleman—as independent men who do their duty, I confess I thought to myself that there is no country in the world where there is so noble a class of working men if they have a fair chance offered them. When I said so to Mr. Webb, he replied, 'You must recollect that we have a sort of *corps d'élite* here. We have in our works 6,000 men, who are the pick of the working men of the world.' I thought to myself what the class is capable of producing, under favourable circumstances, it is capable of producing elsewhere if only we could remove the lets and hindrances."

Ancient Measure at Norwich.—Mr. J. D. Smith, at a meeting of the Norwich Town Council last week, stated that among lumber stored in a chamber at the top of the Guildhall, the City Committee had discovered an ancient bushel measure formerly used by the corporation. This was a valuable specimen, and would, if the corporation desired to sell it, fetch a sum of money. He, however, moved that the measure be lent to the trustees of the Norwich Museum, so that visitors to that place could see it. [The measure, which was brought into the Council-chamber, is of bell metal, very heavy, and in shape not unlike a cauldron, except that its sides are upright and not curved. Round the outside of the measure is this inscription, in raised characters, in French:—"Henry VII., by the Grace of God King of England and France."] Mr. Hill seconded the motion, which was agreed to; Mr. Stanley remarking that it would be placed with other measures formerly belonging to the city, and would complete the set. The City Surveyor said he had measured the capacity of the vessel, and found it almost exactly the same as that of an imperial bushel of the present day. In reply to the sheriff, Mr. Smith stated that several other things, amongst them some valuable books, had also been discovered, concerning which a report would be made.

Sea Wall and Esplanade, Sandgate.—The Local Board of Health having made application to the Local Government Board for permission to borrow 1,500*l*. to pay for the sea-wall and esplanade, which have been carried 900 yards further to the westward this autumn; and also for making a new sewage-chamber at the outfall and a new subsidiary main-drain; a public inquiry was held on Thursday, 21st inst., in the Assembly Room, respecting the above loan, by Major Hector Tullock, the inspector appointed by the Local Government Board for the purpose. The inspector having taken all the information necessary, visited the works, and stated that he should report to the Local Government Board on their efficiency.

New Bonded Warehouses, Kendal.—These warehouses, which are being erected by the Kendal Bonded Warehouses Company (Limited), are situated on the east bank of the river Kent, a short distance above Stranonsgate Bridge. The site, which is freehold, was purchased by the Kendal Chamber of Commerce, who afterwards handed it over to the Warehouse Company, for the purpose of erecting buildings for the storing of bonded goods. The new warehouses will include a free as well as a bonded department. Mr. Stephen Shaw is the architect. The building is 200 ft. long, 108 ft. in width, and two stories in height. The lower story, which is composed of vaults or cellars, is fireproof throughout, and the upper story is partially so. The lower story is arched over with brickwork, and carried upon cast-iron pillars and girders. The windows throughout are of iron, and are also protected by strong stanchions. The building contains sixteen commodious warerooms, four of the largest being each 100 ft. in length by 33 ft. in width. The warehouses will be connected with the London and North-Western Railway by means of a siding.

New Artesian Well at Leamington.—The contract for the artesian well, near to the Campion Hills, is rapidly approaching completion; and was on Saturday formally inspected by Mr. Dale, C.E., of Hull, the consulting engineer of the Leamington Local Board for the work. The shaft has been sunk to a depth of 50 ft., and at the bottom of this well a bore has been carried down for another 200 ft., part of the way 18 in., and the remainder of the way 12 in. in diameter. The shaft and bore, except a few feet at the surface, have passed through sandstone. On Saturday steps were taken to ascertain the probable yield of water from the well. The shaft was first pumped dry, and then the bore, which had been closed up, was opened, and the water allowed to flow into the well. The yield was so abundant that the water in the capacious shaft rose 18 in. in a minute, and though the "head" gradually diminished as the water rose in the well, it flowed in until it stood at a total depth of 30 ft. The computation made on the spot was, that as the water rose 18 in. in the first minute, and a foot of the well represented 320 gallons, the yield in 1,440 minutes—or twenty-four hours—would be 697,200 gallons.

Stealing Timber. — At the Birmingham Police Court John James (32), foreman, Buckingham-street, and Henry Newton (59), carpenter, Newton-row, were charged with stealing a quantity of timber, value 25s., the property of Anthony Cassera, manufacturer, Carr's-lane. The prosecutor, who had a timber yard in Snow-hill, has missed at various times timber, and a few days ago communicated with the police. On the 20th inst. Detective-sergeant Cooper watched the premises, and about six o'clock he saw the prisoners with another man go on to the wharf with a handcart. Shortly after they left with some timber upon the cart. Later on in the day the officer arrested the prisoners, and on being charged James admitted his guilt, but the other man denied the accusation. The third man was afterwards seen by Cooper, and acknowledged that he had the timber, but had bought it, and did not know that it was stolen. The prisoner James was in prosecutor's employ. Both the prisoners were sentenced to three months' imprisonment.

University Education in Sheffield.—The movement which has been set on foot in Sheffield for affording University education was inaugurated on Monday, by a meeting in the Cutlers' Hall. The Mayor (Mr. Mark Firth) presided. He was supported by Mr. Mundella, M.P., Mr. S. Roberts, the Rev. Dr. Stacey, Mr. H. Clifton Sorby, the Rev. S. Earnshaw, the Rev. W. Moore Ede, M.A. (who represented Cambridge University), and Mr. S. Cole. After a lengthy address, Mr. Mundella moved the following resolution:—"That this meeting, having heard Mr. Ede's system of education for large towns proposed by the University of Cambridge, highly approves of it, as being eminently suitable for this town, and believes it confers educational advantages which will be found highly beneficial by all classes." Mr. Wrigley, a delegate from the Sheffield Trades Council, seconded the resolution, which was passed.

Gymnasium at Harrow.—We are asked to add to our notice of this building, illustrated in our last issue, that the fittings were erected by Messrs. Sparrow & Charles Spencer.

Drainage of Sheerness-upon-Sea. — At a meeting of the Local Board of Health on the 20th inst., Mr. Prosser read the report of the committee appointed at the last meeting to consider the improvement about to be made in the drainage system of this town. The report showed that the committee had been to a considerable amount of trouble in the matter. It was a very lengthy one, and the surveyor estimated that the carrying out of the plan proposed by the committee would involve an expenditure of 2,500*l*. Mr. Gordon moved, and the chairman seconded, that the report be received and adopted, and that the surveyor be instructed to prepare a plan and estimate previously to the Board's applying for permission to borrow the money to carry out the work. The resolution was carried.

The Restoration of Margate Parish Church.—Since this church was closed all the pews have disappeared, with the exception of those in the chancel. The committee appointed by the vestry chose Messrs. R. Paramor & Son for their work; but the chancel being in the hands of the Ecclesiastical Commissioners, and Messrs. Adcock having offered a somewhat lower tender for it, the Commissioners seemed disposed to give them the chancel restoration, though the vicar was anxious that all the work should be done by one firm. Messrs. Paramor & Son have since been accepted by the Ecclesiastical Commissioners as contractors for the chancel, as well as the nave of the church. The restoration of the chancel, therefore, is now in full progress.

Dangerous Structures. — The case of Cheetham *v.* The Corporation of Manchester was heard on the 18th inst. in the Court of Common Pleas. The plaintiff was the owner of three houses in Market-street, and one in Palace-street, Manchester; and the question was whether he could recover from the defendants for certain damage which he had sustained in consequence of their having taken proceedings in reference to the houses as dangerous structures. Lord Coleridge, after going through the provisions of the Manchester Police Act, and comparing those provisions with the facts of the case, held that the proceedings had been quite regular, and therefore that the plaintiff was not entitled to recover. Judgment for the defendants.

The New County Asylum, Banstead.—At a meeting of magistrates, at the Sessions House, Clerkenwell, on the 21st inst., a report was received from the committee appointed to erect a third county lunatic asylum at Banstead, Surrey, which stated that they were actively pushing on the works to completion. The supply of water in the dry season had been tested, and it was found to yield 168,000 gallons every twenty-four hours. The committee were also making great progress in the examination of the plans and estimates for the completion of the building for the reception and occupation of patients. The report was adopted.

A National Sanitary Association.—The interest excited by the conference on sanitary reform held in Birmingham suggested the establishment of a National Sanitary Association for the promotion of sanitary science. It is proposed that the first annual meeting shall be held in Birmingham in the autumn of the present year, and that other large towns shall be visited in annual succession if the proposal meets with sufficient support. A local committee will be first formed, and then a meeting of members having been called, an executive, representing all important districts, will be elected to consider the future business of the association.

Building at Allerton.—The continued prosperity of this thriving manufacturing and agricultural village is indicated by the pressing demand for cottage dwellings, notwithstanding that within the past few months several blocks of houses have been built. To meet the demand Messrs. Robertshaw & Sons are about to erect thirty dwellings forthwith, to be succeeded by others, in the upper portion of the village, and the Allerton Co-operative Society intend also to build twenty-four in that pleasant part of the village known as the Grange.

The Wakefield Borough Surveyorship.—Mr. John Pagan, assistant borough surveyor of Sheffield, will, it is confidently expected, be appointed borough surveyor of Wakefield. There are about sixty applicants for the post, and the General Works Committee have resolved to recommend Mr. Pagan for the appointment.

Withdrawal of the Bill for Freeing Metropolitan Bridges. — At the meeting of the Metropolitan Board of Works on the 22nd inst., a letter was read from the Chancellor of the Exchequer, stating that the Government could not consent to the extension of the coal and wine dues as an equivalent for freeing the metropolitan bridges from tolls; and a motion by Mr. Runtz to proceed with the Bill for freeing the bridges, so far as regards Waterloo Bridge after discussion, was withdrawn. The Bill will therefore be abandoned.

Eythorne.—The re-opening of the village church after restoration has taken place. The Rev. G. W. Seppings, shortly after his appointment to the rectory, undertook the work of renovation, which has been carried out at a cost exceeding 2,000*l*. It was found necessary entirely to renew the roofs, and to rebuild the whole of the interior, whilst several of the windows have been completely renewed. The walls have been repaired in flint work, and stone copings and crosses added externally.

The Drainage of Deal.—At a meeting of the Council recently, the Drainage Committee, having considered the subject of extending the drainage to the remainder of the town, expressed the opinion that it would be desirable that the same should at once be fully carried out and completed. At the ensuing meeting, Councillor Sutton proposed that the Town Clerk should apply for power to borrow 3,500*l*. for drainage purposes, which was seconded by Alderman Ralph, and carried unanimously.

The Borough Surveyor, Bradford.—The sub-committee of the Finance and General Purposes Committee of the Corporation have resolved to recommend that the two offices of engineer and borough surveyor may be separated, and that Mr. Allinson be appointed as borough surveyor, and that a waterworks manager be appointed at a salary of 400*l*. a year. Mr. Allinson has for the past twelve months discharged the duties of borough surveyor.

Sinking of the Hythe Railway Station.—Notwithstanding that this station has been underpinned with masses of concrete and stone walling to the depth of 20 ft., and in some spots 40 ft., and although there are piles 53 ft. long driven under it, it still continues to sink. The treacherous wealden clay of the locality seems to be of little more consistency than "butter," and wherever a weight is placed upon it, it "spews" out.

Proposed Extension of Margate Jetty.—The desire to effect this has not been abandoned by the directors of the Pier and Harbour Company. At the meeting held last week the question was again under consideration, and the engineer (Mr. G. G. Page) was present. Two or three tenders for the execution of the work were opened, and we hear that there was but little difference between the estimates.

Councils of Arbitration.—The Trades Congress again met at Liverpool, on Saturday, when the subject of arbitration and conciliation in cases of dispute between employer and employed was considered, and a resolution was proposed to the effect that local Boards or councils of arbitration should be established in the chief industrial centres of the United Kingdom for the furtherance of friendly settlements of disputes. This was unanimously adopted.

The Society of Engineers.—The first ordinary meeting of the society for the year 1875 will be held on Monday, the 1st of February next, in the Society's hall. The president for 1874, Mr. William Macgeorge, will present the premiums awarded for papers read during the year; and the president for 1875, Mr. John Henry Adams, will deliver his inaugural address.

Wood Paving for Piccadilly.—The Vestry of St. George, Hanover-square, have accepted the offer of Mr. J. G. Leigh, of No. 138, Piccadilly, to pay the cost of laying wood paving in Piccadilly, between Park-lane and Hamilton-place. The work is to be commenced at once, and the surveyor has been directed to proceed with the work as speedily as possible. The amount is estimated at 812*l*.

Institution of Surveyors.—At the ordinary general meeting, January 18th, the adjourned discussion on the paper by Mr. J. E. Knollys, entitled "The Landlord and Tenant Question," was resumed, and, after a long debate, again adjourned until next meeting.

Shirley Church, Southampton.—A gift has been made by Mr. William Haigh and Mrs. W. Haigh for the warming of this church; this will be effected by hot water, and the work has been entrusted to Mr. Milsom and Mr. Richards. The cost will be about 170*l.*, the whole of which will be defrayed by the donors.

Royal Society of Artists, Birmingham. The annual exhibition has closed after a very successful season. The sales during the season were as follows:—General sales, 4,327*l.* 14*s.*; Art Union sales, 783*l.* 4*s.*; total, 5,110*l.* 18*s.* 224 pictures were thus disposed of. No less than 37,260 persons visited the rooms during the past few months.

Sale of Margaret Chapel, Bath.—This building, for a long series of years used for Divine worship in connexion with the Church of England, was sold by Messrs. Knight & Son, at their rooms in Milsom-street, on the 19th inst., to Mr. William Duck, of this city, for 1,950*l.* The building is likely to be converted into a skating rink.

National Association of Carpenters and Joiners.—The establishment of a National Association of Carpenters and Joiners was celebrated by a dinner held at the Woolpeck Hotel, Birmingham, on Saturday afternoon. The Mayor presided, and there were also present Alderman Hawkes, Dr. Burdett, and Mr. Rupert Kettle.

Proposed Docks for Wisbeach.—A large meeting of ratepayers was held at Wisbeach last week, to consider the expediency of proposing a Bill in Parliament applying for powers to construct docks at Wisbeach. The Bill is proposed by the Wisbeach Docks Company. A resolution in favour of the Bill was adopted.

University Education for Working Men. A gentleman, whose name is unknown, has made a gift of 10,000*l.* for the promotion of university education among the working classes of Nottingham.

Masonic Temple in Rome.—It is said that a Masonic temple is to be solemnly inaugurated in Rome next month. It is understood the occasion will be one of very great pomp.

Swindon.—It is proposed to erect a church and schools at Gorsehill, Swindon, a new village recently sprung up, for the accommodation of railway *employés*.

TENDERS

For building three warehouses, Bevis Marks, St. Mary Axe, exclusive of cranes, lifts, fittings, &c. Mr. H. H. Collins, architect:—

Honeywell	£19,919 0 0
Scrivener & White	19,418 0 0
Moreland & Nixon	17,998 0 0
Kelly, Bros.	17,950 0 0
Thorne & Co.	17,500 0 0
Mortar	17,330 0 0
Brass	16,925 0 0
Newman & Mann	16,859 0 0
Bayes & Ramage	16,700 0 0
Manley & Rogers	16,645 0 0
Merritt & Ashby	16,150 0 0
Kirk & Co.	14,940 0 0
Oliver (accepted)	14,875 0 0

For constructing and making roads and sewers, Thornton Heath, for Mr. J. Sharp. Messrs. Toy & Franks, surveyors:—

Moore & Co.	£685 0 0!
Dover, Sons, & Co.	366 3 1
Barns	325 0 0
Lake	300 0 0
Goodair	295 0 0
Craker	271 0 0
Porter (accepted)	227 10 0!

For stable at Hainsult House, Chigwell, Essex, for Mr. T. Blundell. Messrs. A. & C. Harston, architects:—

Palmer (accepted)	£281 0 0

For general repairs to the London Orphan Asylum, Lower Clapton, fo the Metropolitan Asylums Board. Messrs. A. & C. Harston, architects:—

Denbeigh	£1,279 0 0
Dixon	1,185 0 0
Derby	1,049 0 0
Waldram	989 0 0
Barber, Son, & Lutwyche	955 0 0
Wadsworth (accepted)	938 0 0

Engineering Work and Laundry and Kitchen Fittings.

Fraser, Bros. (accepted)	£853 0 0

For alterations to No. 60, King William-street, City, for the Scottish Equitable Assurance Society, exclusive of gasfittings. Mr. C. J. Phipps, architect:—

Lugg (accepted)	£1,208 0 0

For additions and alterations to the Home in the East Reformatory School, Old Ford, Middlesex. Messrs. A. & C. Harston, architects:—

Johnson	£989 0 0
Hearle & Son	985 0 0
Harris & Wardrop	931 0 0

For alterations and repairs at Nos. 19 and 20, Bishopsgate-street, for Messrs. McIntyre & Co. Mr. T. C. Clark, architect:—

	Internal.	External.
Clarke & Brassey	£633 0 0	£203 0 0
Kiddle & Son	525 0 0	200 0 0
Heeps	517 0 0	198 0 0
Greenwood & Son*	495 0 0	165 0 0

* Accepted.

For alterations to premises, No. 6, Lowndes-terrace. Mr. F. Dovey, architect:—

Thompson & Smith	£783 0 0
Turrell	655 0 0
Langmead & Way	650 0 0
Salter	625 0 0
Taylor	619 0 0
Wagner	597 0 0

For works at Hythe Church. Mr. Street, R.A., architect:—

Shearburn	£6,648 0 0
Gaskin & Godden	6,159 6 0
Adcock	5,991 18 0
Wilson	4,325 0 0

For new monastery at Highgate. Mr. F. W. Taske, architect:—

Grimwood & Son (accepted).

For warehouses, London-wall:—

Carle	£7,570 0 0
Rivett	7,272 0 0
Crossley	6,968 0 0
Crabb	6,950 0 0
Foster	6,934 0 0
Newman & Mann	6,900 0 0
Sharpington & Cole	6,889 0 0
Brown	6,840 0 0
Scrivener & White	6,788 0 0
Grimwood & Sons	6,712 0 0
Cook & Green	6,666 0 0

For foundations of the new parish church of St. Mary, Whitechapel. Mr. E. C. Lee, architect. Quantities supplied by Mr. L. C. Riddett:—

Macey	£4,198 0 0
Ashby & Horner	4,144 0 0
Conder	3,996 0 0
Lucas, Bros.	3,985 0 0
Enmor	3,925 0 0
Holland & Hannen	3,613 0 0
Jacobs	3,600 0 0
Gammon & Sons	3,544 0 0
Chappell (accepted)	3,492 0 0

For the erection of a block of buildings, for lying-in and infants' wards, inclusive of credit for materials on the site, for the Guardians of the Parish of St. Pancras. Mr. H. H. Bridgman, architect. Quantities by Messrs. W. Barnett & F. Thomson:—

Stamp & Bowtle	£6,839 0 0
Moreland & Nixon	6,747 0 0
McLachlan & Son	6,545 0 0
Nightingale	6,393 0 0
Boden	6,300 0 0
Tarrant	6,227 0 0
Timewell	6,200 0 0
Crockett	6,187 0 0
Merritt & Ashby	6,161 0 0
Hunt	6,069 0 0
Willson, Bros.	6,050 0 0
Niblett & Sons	5,995 0 0
Ward	5,992 0 0
Thompson	5,932 0 0
Elkington	5,890 0 0
Smith	5,862 0 0
Grimwood & Sons	5,749 0 0
Toms	5,619 0 0
Aitchison & Walker (accepted)*	5,245 0 0

* But for an error in the cast this tender would have been 5,445*l.*

Tenders for five warehouses, Queen Victoria-street. Mr. J. Wimble, architect:—

		Sub-basement extra.
Brass	£14,242	£350
Colls	13,260	739
Kilby	13,177	880
Newman & Mann	13,155	716
Scrivenir & White	13,065	772
W. & F. Croaker	12,939	790
Mortar	12,917	700

TO CORRESPONDENTS.

Swings, Bars, Bung Poles, &c.—We depart from our usual custom to say, in reply to more than one inquirer, that things of this sort are made by Messrs. Geo. Spencer & Co. late Snowell & Spencer, Howard's-buildings, St. Luke's, E.C.; also by Messrs. Sparrow & Spencer, Piccadilly.

M. J. C.—C. G.—S.—W. T.—J. G. & Son.—H. S.—S. J. L.—Mr. T.—Dr. G.—G & Co.—A. F.—W. T. & F.—W. H. O.—U.—G. P.—E. H.—J. A. K.—M. U.—F. E. T.—P. R.—T. N.—J. C.—J. M.—S. & S.—H. H. B.—A. G.—M. I.—C. C. (we have already protested against the threatened destruction of the old Toll-house in Yarmouth).—F. G. (the law on the subject is still doubtful. The question is discussed at some length in a previous volume of the *Builder*).—W. A. (premium offered by Sir Joseph Whitworth has been awarded).—M. (ditto).—G. M. (we could not advocate the plan).—B. L. (next week).

Enlargement of Foresters' Hall.—In reply to W. L. G. and Messrs. L. & P. we are informed that the particulars given in our last number are perfectly correct. The design mentioned has been unanimously recommended by the committee for adoption.

We are compelled to decline pointing out books and giving addresses.

All statements of facts, list of tenders, &c. must be accompanied by the name and address of the sender, not necessarily for publication.

NOTE.—The responsibility of signed articles, and papers read at public meetings, rests, of course, with the authors.

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